

UNIVERSITY
OF
ALBERTA
PRINTING DEPT.

The University of Alberta



Calendar

Thirty-sixth Session
1943-44

Edmonton, Alberta

1943

CALENDAR

1943

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2		1	2	3	4	5	6		1	2	3	4	5	6					1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28							28	29	30	31				25	26	27	28	29	30	
31																											
MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1			1	2	3	4	5				1	2	3		1	2	3	4	5	6	7
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31	29	30	31				
30	31																										
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2							1	2						1	2						3
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
							31																				

1944

CALENDAR

1944

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1			1	2	3	4	5				1	2	3	4						1	
2	3	4	5	6	7	8	6	7	8	9	10	11	12	5	6	7	8	9	10	11	2	3	4	5	6	7	8
9	10	11	12	13	14	15	13	14	15	16	17	18	19	12	13	14	15	16	17	18	9	10	11	12	13	14	15
16	17	18	19	20	21	22	20	21	22	23	24	25	26	19	20	21	22	23	24	25	16	17	18	19	20	21	22
23	24	25	26	27	28	29	27	8	29					26	27	28	29	30	31		30						
30	31																										
MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1	2						1							1
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30	31		
														30	31												
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2							1							1	2						1
3		5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						

ACADEMIC CALENDAR

1943-44

SPECIAL ANNOUNCEMENT

In order to expedite the graduation of students in Medicine and Dentistry who wish to join the Armed Services and in other ways contribute to the war effort the courses in Medicine and Dentistry have been accelerated. Students and prospective students in Medicine and Dentistry should watch for press announcements or write the Registrar's Office for exact information concerning the dates for accelerated courses.

July—

Summer Session Supplemental examinations, see 1943 Summer Session Bulletin.
Registration of Summer Session students, see 1943 Summer Session Bulletin.
Summer Session lectures begin, see 1943 Summer Session Bulletin.
Wednesday, 28—Banff School of Fine Arts opens.

August—

Friday, 6—Applications due for August matriculation examinations at the office of the Chairman of the High School and University Matriculation Examinations Board, Parliament Buildings, Edmonton.
Tuesday, 10—Last day for receiving applications for examinations on behalf of affiliated professional societies.
Summer Session closes, see 1943 Summer Session Bulletin.
Friday, 13—Autumn matriculation examinations begin.
Saturday, 14—Last day for receiving applications for supplemental examinations.
(For information regarding special supplemental examinations, see page 57.)
Monday, 28—Banff School of Fine Arts closes.
Tuesday, 31—Last day for receiving applications for admission to the School of Nursing, the Faculty of Applied Science and the School of Household Economics.

September—

Monday, 6—Students of the Degree Course in Nursing admitted to the University Hospital for preliminary period.
Monday, 13—Examinations of affiliated professional societies begin.
Monday, 13—Supplemental examinations begin.
Tuesday, 21—Registration of all first year students.
Wednesday, 22—Registration of all other students in the Faculty of Arts and Science (including the Schools of Commerce and Household Economics), and the Faculty of Education.
Thursday, 23—Registration of all other students in the Schools of Nursing and Pharmacy (including the B.Sc. in Nursing, the B.Sc. in Pharmacy and

ACADEMIC CALENDAR

Diploma in Pharmacy), and the Faculties of Agriculture, Applied Science, Law and Medicine (including Dentistry).

September 21, 22, 23—Physical examination of all new students.

Friday, 24—Lectures in all courses begin.

Thursday, 30—Psychological examination for all new students.

October—

Friday, 1—Last day for graduate students to apply for registration.

Saturday, 2—University Field Day.

Monday, 4—Last day for payment of fees.

Monday, 11—Thanksgiving Day.

Friday, 15—Last day for graduate and B.D. students to adjust courses, or submit subjects of investigation.

Saturday, 16—Supplemental examinations in C.E. 5 and 8 (afternoon).

Saturday, 16—Special supplemental examinations.

November—

Saturday, 6—First meeting of Students' Union (11:00 a.m.).

Friday, 12—Last day for return on standing of first year students.

December—

Examinations of Institute of Chartered Accountants of Alberta.

Wednesday, 22—Last day of first term.

1944

January—

Monday, 3—Lectures begin.

Monday, 3—Students of the Diploma Course in Nursing admitted to the University Hospital.

Tuesday, 4—Last day for payment of fees, second term.

Monday, 24—Examinations of the Alberta Land Surveyors' Association begin.

February—

Monday, 14—Term examinations begin.

Saturday, 19—Last day of term examinations.

March—

Wednesday, 1—Last day for receiving applications for examinations on behalf of affiliated professional societies.

Saturday, 4—Final meeting Students' Union (11:00 a.m.).

Saturday, 25—Last day of lectures in first and second years Applied Science.

Wednesday, 29—Final examinations begin in first and second years Applied Science.

April—

Thursday, 6—Last day of lectures in Arts, Law, Medicine, Pharmacy, Agriculture, third and fourth years Applied Science, and Education.

Thursday, 6—Last day for submission of theses in competition for special prizes.

Thursday, 6—Last day for submission by graduate students of theses or reports of results of investigation.

Friday, 7—Good Friday.

Monday, 10—Final examinations begin in all faculties.

Monday, 10—Survey School begins.

Wednesday, 12—Examinations of the following affiliated professional societies begin: The College of Physicians and Surgeons of Alberta, The Alberta Dental Association, The Alberta Land Surveyors' Association, The Alberta Association of Architects, The Alberta Association of Registered Nurses, The Veterinary Association of Alberta, The Alberta Optometric Association, and the Alberta Pharmaceutical Association.

May—

Saturday, 6—Last day of Survey School.

Tuesday, 9—Charter Day.

Tuesday, 16—Convocation for the conferring of degrees and awarding of prizes.

Matriculation requirements as published in this calendar are effective as from July 1, 1944. Other regulations are effective as from July 1, 1943, except where otherwise noted.

GOVERNING BODY OF THE UNIVERSITY OF ALBERTA

VISITOR

THE HONORABLE JOHN CAMPBELL BOWEN, LL.D., Lieutenant-Governor of Alberta.

CHANCELLOR

THE HONORABLE MR. JUSTICE FORD, B.C.L., D.C.L.

THE BOARD OF GOVERNORS

HAROLD HAYWARD PARLEE, K.C., B.A., B.C.L., Chairman.

THE HONORABLE MR. JUSTICE FORD, B.C.L., D.C.L., Chancellor of the University.

ROBERT NEWTON, M.C., B.S.A., M.Sc., Ph.D., D.Sc., F.R.S.C., President of the University.

GEORGE FREDERICK McNALLY, M.A., LL.D., Deputy Minister of Education.

JOHN FRANCIS PERCIVAL, Esq., Deputy Provincial Treasurer.

GUTHRIE BROWN SANFORD, B.S.A., Ph.D., President of the Alumni Association.

HUGH JOHN MACDONALD, K.C., B.A., LL.B., M.L.A., Vice-President of the Alumni Association.

ROBERT ARTHUR BROWN, B.Sc.

THE HONORABLE LUCIEN DUBUC.

ALFRED FARMILLO, Esq.

MRS. SUSAN MARGARET GUNN.

REVEREND FRANCIS STACEY McCALL, B.A., D.D.

GEORGE DOUGLAS STANLEY, M.B., F.I.C.A.

ARCHIBALD WEST, Bursar, Secretary of the Board.

THE SENATE

Statutory Members:

THE HONORABLE MR. JUSTICE FORD, B.C.L., D.C.L., Chancellor.

ROBERT NEWTON, M.C., B.S.A., M.Sc., Ph.D., D.Sc., F.R.S.C., President.

HAROLD HAYWARD PARLEE, K.C., B.A., B.C.L., Chairman of the Board of Governors.

GEORGE MALCOLM SMITH, M.C., M.A., Dean of the Faculty of Arts and Science, representative of the Deans' Council, to retire June 1, 1945.

REVEREND ALFRED DENNIS MILLER, M.A., B.D., D.D., Principal of St. Stephen's College.

BROTHER ANSBERT, F.S.C., M.A., Rector of St. Joseph's College.

RIGHT REVEREND WALTER FOSTER BARFOOT, M.A., D.D., Rector of St. Aidan's College.

HUBERT CHARLES NEWLAND, B.A., LL.B., M.A., B.Ed., Ph.D., Supervisor of Schools.

JAMES FOWLER, B.A., B.Sc., Principal, Provincial Institute of Technology and Art.

REVEREND JOHN HENDERSON GARDEN, B.A., B.D., Principal, Mount Royal Junior College.

GUTHRIE BROWN SANFORD, B.S.A., Ph.D., President of the Alumni Association.

HUGH JOHN MACDONALD, K.C., B.A., LL.B., M.L.A., Vice-President of the Alumni Association.

ROBERT STARR LEIGH WILSON, B.Sc., Dean of the Faculty of Applied Science, representative of the General Faculty Council, to retire June 1, 1945.

JOHN MACDONALD, M.A., D.Litt., representative of the General Faculty Council, to retire June 1, 1945.

DONALD CAMERON, M.Sc., Director, Department of Extension.

GERARD JOSEPH AMERONGEN, President of the Students' Union.

Appointed members to retire October 23, 1945:

SAM GRAHAM PORTER, B.A., B.Sc., M.A., representing Agriculture.

HORACE ARNOLD HOWARD, representing Business.

ROBERT THOMAS ALDERMAN, representing Labour.

RALPH CARLTON HARGRAVE, B.Sc., M.Sc., representing Industry.

JOHN WALKER BARNETT, and
 FRANK GORDON BUCHANAN, B.A., M.A., representing Public Education.
 CHARLES EDWIN CAMPBELL, and
 ANNIE MONTGOMERY TILLEY, O.B.E., representing Organizations devoted to
 Social and Cultural Welfare.
 HENRY ELVINS SPENCER, representing Agriculture and Public Education.
 ALBERT EDWARD OTTEWELL, M.A., hon. C.A., Registrar of the University,
 Secretary of the Senate.

ADMINISTRATIVE OFFICERS

ROBERT NEWTON, M.C., B.S.A., M.Sc., Ph.D., D.Sc., F.R.S.C., President of the
 University.
 GEORGE MALCOLM SMITH, M.C., M.A., Dean of the Faculty of Arts and
 Science.
 *ALLAN COATS RANKIN, C.M.G., M.D., C.M., D.P.H., F.R.C.P. (C), Dean
 of the Faculty of Medicine.
 ROBERT STARR LEIGH WILSON, B.Sc., Dean of the Faculty of Applied Science.
 ROBERT DAVID SINCLAIR, B.S.A., M.S., Ph.D., Dean of the Faculty of
 Agriculture.
 MILTON EZRA LAZERTE, M.A., B.Ed., Ph.D., Dean of the Faculty of Education.
 MALCOLM MURRAY MacINTRYE, B.A., LL.M., S.J.D., Dean of the Faculty of
 Law.
 JOHN MALCOLM MacEACHRAN, M.A., Ph.D., LL.D., Provost of the University.
 MARY WILLAN WINSPEAR, M.A., Ph.D., Adviser to Women Students.
 DONALD EWING CAMERON, M.A., Librarian to the University.
 ANGUS CECIL McGUGAN, M.D., D.P.H., Superintendent of the University
 Hospital.
 HELEN SMITH PETERS, R.N., Superintendent of Nurses, University Hospital.
 ALBERT EDWARD OTTEWELL, M.A., hon. C.A., Registrar of the University.
 GEOFFREY BRADFORD TAYLOR, M.Sc., Assistant Registrar.
 ARCHIBALD WEST, Bursar of the University.
 CLEM LIVINGSTONE KING, B.Com., C.A., Executive Assistant to the President.

FACULTY COUNCILS

GENERAL FACULTY COUNCIL

President NEWTON	Professor THORNTON.
Dean SMITH.	Professor SHAW.
*Dean RANKIN.	Professor HAMILTON.
Dean WILSON.	Professor ROWAN.
Dean SINCLAIR.	Professor MACDONALD.
Dean LAZERTE.	Professor HARDY.
Dean MacINTYRE.	Professor LANG.
Professor MacEACHRAN.	Professor J. D. NEWTON.
Professor SHELDON.	Professor WALKER.
Professor ALLAN.	Professor GREENE.
Professor OWER.	Professor OWEN.
Professor WYATT.	Professor WARREN.
Professor PITCHER.	Professor CLARK.
Professor DOWNS.	Professor SHOEMAKER.
Professor MacGREGOR SMITH.	Professor FRYER.
Professor MORRISON.	Professor LONG.
*Professor STRICKLAND.	Professor PATRICK.
Professor SACKVILLE.	*Professor CULLWICK.
Professor POPE.	Professor MOSS.
Professor GORDON.	Professor GILLESPIE.
Professor SONET.	Professor McALLA.
Professor MISENER.	Professor MATTHEWS.
Professor CAMPBELL.	Professor SANDIN.
Professor SHANER.	Professor BOOMER.
Professor ELLIOTT.	D. E. CAMERON, Esq.
Professor HUNTER.	DONALD CAMERON, Esq.

THE REGISTRAR, Secretary.

*On War Service.

FACULTY OF ARTS AND SCIENCE

President NEWTON.	Professor PATRICK.
Dean SMITH.	Professor MOSS.
Professor MacEACHRAN.	Professor SANDIN.
Professor SHELDON.	Professor BOOMER.
Professor ALLAN.	Associate Professor COOK.
Professor DOWNS.	Associate Professor RUTHERFORD.
*Professor STRICKLAND.	*Associate Professor H. E. SMITH.
Professor GORDON.	Associate Professor COLLINS.
Professor SONET.	Associate Professor NICHOLS.
Professor MISENER.	Associate Professor SALTER.
Professor CAMPBELL.	*Assistant Professor JONES.
Professor ELLIOTT.	Assistant Professor KEEPING.
Professor HUNTER.	Assistant Professor HUGHES.
Professor ROWAN.	Assistant Professor HEWETSON.
Professor MACDONALD.	Assistant Professor GOWAN.
Professor W. G. HARDY.	Assistant Professor WINSPEAR.
Professor LANG.	Assistant Professor CANTOR.
Professor WALKER.	Assistant Professor STEWART.
Professor OWEN.	Assistant Professor ARGUE.
Professor WARREN.	The REGISTRAR.
Professor LONG.	

FACULTY OF APPLIED SCIENCE

President NEWTON.	Assistant Professor KEEPING.
Dean WILSON.	Assistant Professor GOWAN.
Professor PITCHER.	Assistant Professor PORTEOUS.
*Professor CULLWICK.	Mr. GOVIER.
Professor MORRISON.	Mr. LILGE.
Professor CLARK.	Mr. PRESTON.
Professor LANG.	Mr. THORSEN.
Professor ALLAN.	Emeritus Professor BURGESS, Representative of the Alberta Association of Architects.
Professor STANSFIELD.	Mr. R. S. TROWSDALE, Representative of the Association of Professional Engineers of Alberta.
Professor SHELDON.	Mr. A. P. C. BELYEA, Representative of the Alberta Land Surveyors Association.
Professor ELLIOTT.	The REGISTRAR.
Professor CAMPBELL.	
Professor WALKER.	
Professor BOOMER.	
Associate Professor RUTHERFORD.	
Associate Professor CORNISH.	
Associate Professor HARDY.	
Associate Professor NICHOLS.	

FACULTY OF MEDICINE

President NEWTON.	Professor HEPBURN.
*Dean RANKIN.	Professor SCOTT HAMILTON.
Professor OWER (Acting Dean).	Professor LEVEY.
Professor DOWNS.	Professor BAKER.
Professor POPE.	Professor VANT.
Professor SHANER.	Professor MATTHEWS.
Professor GILLESPIE.	The Representative of the College of Physicians and Surgeons of Alberta.
Professor HUNTER.	Associate Professor RAWLINSON (Recording Secretary).
Professor JAMIESON.	The REGISTRAR.
Professor SHAW.	
Professor GREENE.	
Professor BELL.	

The above constitute the Faculty Council.

Associate Professor BOW.	Clinical Professor W. H. SCOTT.
Associate Professor GRAY.	Assistant Professor FIFE.
Associate Professor MACGREGOR.	Assistant Professor CANTOR.
Associate Professor J. W. SCOTT.	Assistant Professor RODMAN.
Clinical Professor ELLIS.	Assistant Professor HALL.
Clinical Professor HURLBURT.	Assistant Professor MACLEAN.
Clinical Professor LEITCH.	*Assistant Professor K. HAMILTON.
Clinical Professor MEWBURN.	Assistant Professor SPRAGUE.
Clinical Professor ORR.	

*On War Service.

GOVERNING BODY

FACULTY OF AGRICULTURE

President NEWTON.	Professor SHELTON.
Dean SINCLAIR.	Professor ALLAN.
Professor WYATT.	*Professor RANKIN.
Professor MACGREGOR SMITH.	Professor GORDON.
Professor SACKVILLE.	Professor ELLIOTT.
*Professor STRICKLAND.	Professor ROWAN.
Professor THORNTON.	Professor WALKER.
Professor SHOEMAKER.	Professor LANG.
Professor NEWTON.	Professor MOSS.
Professor FRYER.	Associate Professor BOWSTEAD.
Professor TALBOT, Representative of the Veterinary Medical Association of Alberta.	Associate Professor HENRY.
Professor McCALLA.	Mr. CLANDININ. The REGISTRAR.

FACULTY OF LAW

President NEWTON.	M. S. H. McCUAIG, K.C., Representa- tive of the Law Society of Alberta.
Dean MACINTYRE.	The REGISTRAR.
Honorary Professor FORD.	
Professor STEER.	

FACULTY OF EDUCATION

President NEWTON.	Professor PATRICK.
Dean M. E. LAZERTE.	Professor WALKER.
*Associate Professor H. E. SMITH.	Associate Professor COOK.
Associate Professor ARGUE.	Assistant Professor WINSPEAR.
Professor ELLIOTT.	Mr. R. E. SHAUL, Representative of the Alberta Teachers' Association.
Professor FRYER.	The REGISTRAR.
Professor GORDON.	
Professor MACDONALD.	

The above constitute the Faculty Council.

Staff members of various faculties who teach subjects included in Faculty of Education courses.

Part-time instructors in the Faculty of Education.

Demonstrators from the Intermediate and High Schools of the City of Edmonton.

Liaison Committee

President NEWTON, Chairman.	Professor SHELTON.
Dr. G. F. McNALLY.	Professor MACDONALD.
Dean LAZERTE.	Mr. D. M. SULLIVAN.
Dr. H. C. NEWLAND	The REGISTRAR.
Dr. G. S. LORD.	

SCHOOL OF COMMERCE

Dean SMITH, Chairman.	Assistant Professor HEWETSON.
Dean MACINTYRE.	Mr. WEST.
Professor SHELTON.	Mr. E. D. C. THOMSON, Representative of the Institute of Chartered Account- ants of Alberta.
Assistant Professor STEWART.	The REGISTRAR.
Assistant Professor WINSPEAR, Secretary.	

Advisory Committee to the School of Commerce: Mr. J. D. Dower, Mr. A. H. Mayland, Mr. E. D. C. Thomson.

SCHOOL OF DENTISTRY

President NEWTON.	*Dr. BRADLEY.
*Dean RANKIN.	Dr. GEMEROY.
Professor HAMILTON.	Dr. MASON.
Professor OWER.	Dr. WARD.
Professor DOWNS.	Dr. BARNETT.
Professor SHANER.	Dr. R. A. ROONEY, Representative of the Alberta Dental Association.
Professor GILCHRIST.	The REGISTRAR.
Assistant Professor MacLEAN.	

SCHOOL OF GRADUATE STUDIES

Dean SMITH, Chairman.	Professor MACDONALD.
Professor WYATT.	Dean LAZERTE.
Professor PITCHER.	*Professor CULLWICK.
Professor DOWNS.	Professor SINCLAIR.
Professor GORDON.	The REGISTRAR.
Professor WALKER.	

SCHOOL OF HOUSEHOLD ECONOMICS

Dean SMITH, Chairman.	Miss MCINTYRE.
Professor GORDON.	Miss DUGGAN.
Professor SANDIN.	The REGISTRAR.
Professor PATRICK, Secretary.	

SCHOOL OF NURSING

President NEWTON.

*Dean RANKIN.

*Miss MACLEOD, Director of School of Nursing.

Miss McARTHUR, Acting Director.

Professor POPE.

Professor GILLESPIE.

Professor G. M. SMITH.

*Dr. McGUGAN, Supt. of the University Hospital.

Miss PETERS, Supt. of Nurses.

Miss EVANS, Instructor in Nursing.

Miss Margaret S. FRASER, Representative of the Alberta Association of Registered Nurses.

The REGISTRAR.

SCHOOL OF PHARMACY

President NEWTON.

Professor MATTHEWS, Director.

Professor OWER.

Professor SHAW.

Professor HUNTER.

Professor MOSS.

Professor SANDIN.

Assistant Professor RODMAN.

Mr. W. H. SPRAGUE, Representative of the Alberta Pharmaceutical Association.

The REGISTRAR.

UNIVERSITY HOSPITAL BOARD

G. R. F. KIRKPATRICK, Esq.,

Chairman.

Dr. R. M. BOW.

President NEWTON.

H. J. WOODMAN, Esq.

*Dean RANKIN.

W. D. STACEY, Esq.

APPOINTMENTS BOARD

President NEWTON, Chairman.

Messrs: S. J. CRAWLEY, Manager, National Trust Co.

F. M. GERRIE, Managing Editor, Edmonton Journal.

FRANK PIKE, Edmonton.

V. A. PORTER, Manager, International Harvester Co.

A. R. SANDISON, Sales Manager, Dominion Motors Ltd., Edmonton.

ARCHIBALD WEST, Bursar, University of Alberta.

GEOFFREY B. TAYLOR, Assistant Registrar, University of Alberta, Secretary to the Board.

ACADEMIC STAFF

EMERITUS PROFESSORS

JAMES ADAM, M.A. (Alberta), Professor Emeritus of Drawing and Descriptive Geometry.

DANIEL GRAISBERRY REVELL, B.A., M.B. (Toronto), Professor Emeritus of Anatomy.

CECIL SCOTT BURGESS, F.R.I.B.A., F.R.A.I.C., Professor Emeritus of Architecture.

ALEXANDER RUSSELL MUNROE, M.D., C.M. (McGill), F.A.C.S., F.R.C.S. (Canada), Professor Emeritus of Surgery.

CLAUDE VERNON JAMIESON, M.B. (Toronto), F.R.C.S. (C), Professor Emeritus of Rhino-Oto-Laryngology.

HARRY ERNEST BULYEA, D.M.D. (Harvard), Professor Emeritus of Operative Dentistry.

DEPARTMENT OF ACCOUNTING

FRANCIS GEORGE WINSPEAR, C.A., Assistant Professor of Accounting.

ROBERT WINSLOW HAMILTON, B.Com. (Alberta), C.A., Sessional Instructor in Accounting.

CLEM LIVINGSTONE KING, B.Com. (Alberta), C.A., Instructor in Accounting.

DEPARTMENT OF AGRICULTURAL ENGINEERING

JOHN MACGREGOR SMITH, B.S.A. (Manitoba), Professor of Agricultural Engineering.

*On War Service.

DEPARTMENT OF ANATOMY

RALPH FAUST SHANER, Ph.B. (Lafayette), Ph.D. (Harvard), Professor of Anatomy.

EVAN GREENE, M.D., C.M. (McGill), F.R.C.S. (Edinburgh), F.A.C.S., Professor of Anatomy.

HERBERT EDWARD RAWLINSON, M.D. (Alberta), M.Sc., Ph.D. (McGill), Associate Professor of Anatomy.

Sessional Demonstrators:

*ROBERT LYLE SCHARFF, D.D.S. (Toronto).

*HAROLD LANE RICHARD, M.D. (Alberta).

*ALBERT WILLIAM HARDY, M.D. (Alberta).

DEPARTMENT OF ANIMAL SCIENCE

JOHN PERCY SACKVILLE, B.S.A. (Toronto), M.S. (Iowa), Professor of Animal Husbandry.

ROBERT DAVID SINCLAIR, B.S.A. (Alberta), M.S. (Iowa), Ph.D. (Aberdeen), Professor of Animal Husbandry, Dean of the Faculty of Agriculture.

PERCY RUSSELL TALBOT, V.S. (Toronto), M.D.V. (Chicago), Professor of Veterinary Science.

JOHN EDLESTON BOWSTEAD, M.Sc. (Wisconsin), Ph.D. (Wisconsin), Associate Professor of Animal Husbandry.

DONALD ROBERT CLANDININ, M.S.A. (British Columbia), Lecturer in Poultry.

DEPARTMENT OF BACTERIOLOGY AND HYGIENE

*ALLAN COATS RANKIN, C.M.G., M.D., C.M., D.P.H. (McGill), F.R.C.P. (C.), Professor of Bacteriology and Hygiene, Dean of the Faculty of Medicine.

ROBERT McLEOD SHAW, B.A. (Dalhousie), M.D., C.M., D.P.H. (McGill), F.R.C.P. (C.), Professor of Bacteriology and Hygiene.

MALCOLM ROSS BOW, B.A., M.D., C.M. (Queen's), D.P.H. (Toronto), Associate Professor of Public Health.

JAMES AUGUSTUS ROMEYN, B.A. (Toronto), M.D. (Toronto), Assistant Professor of Bacteriology.

ANGUS CECIL McGUGAN, M.D. (Alberta), Lecturer in Public Health.

GEORGE MELDRUM LITTLE, M.D. (Manitoba), D.P.H. (Toronto), Lecturer in Public Health.

WILLIAM JOHN McALISTER, M.D., C.M. (McGill), Instructor in Mental Hygiene.

DEPARTMENT OF BIOCHEMISTRY

GEORGE HUNTER, M.A., B.Sc. (Agric.), D.Sc. (Glasgow), F.R.S.C., Professor of Biochemistry.

MAXWELL MORDCAI CANTOR, B.Sc., M.D. (Manitoba), F.A.C.P., Assistant Professor of Biochemistry.

JULES TUBA, B.Sc., M.Sc. (Saskatchewan), Ph.D. (Toronto), Lecturer in Biochemistry.

DEPARTMENT OF BOTANY

EZRA HENRY MOSS, M.M., M.A., Ph.D. (Toronto), F.R.S.C., Professor of Botany.

*JAMES HOWDEN WHYTE, B.Sc. (Agric.) (Edinburgh), M.Sc., Ph.D. (McGill), Lecturer in Botany.

ROBERT GEORGE HALL CORMACK, M.A., Ph.D. (Toronto), Lecturer in Botany.

DEPARTMENT OF CHEMISTRY

OSMAN JAMES WALKER, B.A. (Saskatchewan), A.M. (Harvard), Ph.D. (McGill), F.C.I.C., Professor of Chemistry.

REUBEN BENJAMIN SANDIN, M.Sc. (Alberta), Ph.D. (Chicago), Professor of Chemistry.

EDWARD HERBERT BOOMER, B.Sc. (British Columbia), M.Sc., Ph.D. (McGill), F.C.I.C., F.R.S.C., Professor of Chemical Engineering.

JOHN LEWIS MORRISON, M.Sc. (Saskatchewan), Ph.D. (McGill and Cantab.), Lecturer in Chemistry.

STUART GEORGE DAVIS, M.Sc. (Alberta), Ph.D. (McGill), Lecturer in Chemistry., Sessional Instructor in Chemistry.

Sessional Demonstrators.

WILLIAM ALBERT LANG, M.Sc. (Alberta), Assistant in Chemistry.

*On War Service.

DEPARTMENT OF CIVIL AND MUNICIPAL ENGINEERING

ROBERT STARR LEIGH WILSON, B.Sc. (McGill), Professor of Civil and Municipal Engineering, Dean of the Faculty of Applied Science.

IBRAHIM FOLLANSBEE MORRISON, B.Sc. (Massachusetts Institute of Technology), Professor of Applied Mechanics.

....., Professor of Mechanical Engineering.

ROBERT McDONALD HARDY, B.Sc. (Manitoba), M.Sc. (McGill), D.L.S., A.L.S., S.L.S., Associate Professor of Civil Engineering.

WILLIAM WALFORD PRESTON, B.Sc. (Queen's), Lecturer in Drawing and Descriptive Geometry.

LEROY ALLAN THORSSSEN, B.Sc. (Alberta), Lecturer in Civil Engineering.

GEORGE WHEELER GOVIER, B.A.Sc. (British Columbia), Lecturer in Chemical Engineering.

DUDLEY BLAIR MENZIES, B.Sc. (Alberta), S.M. (Harvard), Special Lecturer in Sanitary Engineering.

LESLIE HAROLD McMANUS, B.Sc. (Alberta), Sessional Lecturer in Highway Engineering.

FREDERICK McPHERSON, B.Sc. (Alberta), Instructor in Civil Engineering.

Sessional Demonstrators.

DEPARTMENT OF CLASSICS

WILLIAM GEORGE HARDY, M.A. (Toronto), Ph.D. (Chicago), Professor of Classics.

GENEVA MISENER, M.A. (Queen's), Ph.D. (Chicago), Professor of Classics.

WALTER HUGH JOHNS, B.A. (Western Ontario), Ph.D. (Cornell), Lecturer in Classics.

DEPARTMENT OF DAIRYING

HAROLD RAY THORNTON, B.Sc. (Alberta), Ph.D. (Wisconsin), Professor of Dairying.

WALTER LEWIS DUNKLEY, M.Sc. (Alberta), Sessional Assistant in Dairying.

DEPARTMENT OF DENTISTRY

WILLIAM SCOTT HAMILTON, L.D.S., D.D.S. (Toronto), Professor of Exodontia and Oral Surgery, Director of the School of Dentistry.

HARRY ALEXANDER GILCHRIST, D.D.S. (Northwestern), F.A.C.D., Professor of Prosthetic Dentistry.

HECTOR ROBERT MacLEAN, D.D.S. (Alberta), Assistant Professor of Operative Dentistry.

WHITMORE PIPES CALHOUN, B.A. (Acadia), D.D.S. (Alberta), Lecturer in Dental Anatomy and Operative Dentistry.

REYBURN R. McINTYRE, L.D.S., D.D.S. (Toronto), Lecturer in Orthodontia.

GEORGE ALEXANDER GEMEROY, L.D.S., D.D.S. (Toronto), Lecturer in Dental Medicine.

ARTHUR BENJAMIN MASON, D.D.S. (Pennsylvania), Lecturer in Peridontia.

THOMAS FORRESTER MACDONALD, D.D.S. (Pennsylvania), Lecturer in Dental Ethics.

JAMES CECIL WARD, L.D.S., D.D.S. (Toronto), Lecturer in Pathology and Radiology.

ALEXANDER BLAIR PATTERSON, LL.B. (Alberta), Lecturer in Dental Jurisprudence.

*ROBERT WILLIAM BRADLEY, D.D.S. (McGill), Lecturer in Operative Dentistry.

SPERRY DAVID FRASER, D.D.S. (Alberta), Instructor in Prosthetic Dentistry.

THOMAS HAWKER, D.D.S. (Alberta), Instructor in Operative Dentistry.

PHILIP JACK KENDAL, D.D.S. (Alberta), Instructor in Operative Dentistry.

*GORDON BERTRAM THURSTON, L.D.S., D.D.S. (Toronto), Instructor in Operative Dentistry.

FREDERICK S. COLMAN, D.D.S. (Alberta), Instructor in Prosthetic Dentistry.

GEORGE YORK BARNETT, L.D.S., D.D.S. (Toronto), Instructor in Prosthetic Dentistry.

HENRY SANFORD ALEXANDER FLEMING, D.D.S. (Alberta), Instructor in Orthodontia.

*On Active Service.

*RODERICK ARCHIBALD McEWEN, D.D.S. (Alberta), Demonstrator in Prosthetic Dentistry.

ROBERT ARTHUR ROONEY, D.D.S. (Valparaiso), Instructor in Operative Dentistry.

Honorary Members

JOHN WILLIAM CLAY, L.D.S. (Ontario), D.D.S. (Pennsylvania and Toronto), F.I.C.D., Honorary Lecturer in Exodontia.

CLARENCE DUDLEY HUSBAND, D.D.S. (Alberta), Honorary Lecturer in Local Anaesthesia.

HANS BUGGE NESS, D.D.S. (Minnesota), L.D.S. (Saskatchewan), Honorary Lecturer in Crown and Bridge Work.

DEPARTMENT OF EDUCATION

MILTON EZRA LAZERTE, B.A. (Toronto), M.A., B.Ed. (Alberta), Ph.D. (Chicago), Professor of Education and Educational Psychology, Dean of the Faculty of Education.

*HERBERT EDGAR SMITH, B.A. (Illinois), M.A., B.Ed. (Alberta), Ph.D. (California), Associate Professor of Education and Special Lecturer in Psychology.

KENNETH FARNAM ARGUE, B.A. (Alberta), M.A. (Oxon.), D.Ed. (Columbia), Associate Professor of Education.

Part-time instructors in the Faculty of Education.

Demonstrators from the Intermediate and High Schools of the City of Edmonton.

DEPARTMENT OF ELECTRICAL ENGINEERING

*ERNEST GEOFFREY CULLWICK, M.A. (Cantab.), F.R.S.A., Professor of Electrical Engineering.

WILFRED ERNEST CORNISH, B.Sc. (Manitoba), M.Sc. (Alberta), Associate Professor of Electrical Engineering.

JOHN WARDLAW PORTEOUS, B.Sc. (Alberta), Assistant Professor of Electrical Engineering.

JOHN HENRY WAGHORNE, M.Sc. (Queen's), Lecturer in Electrical Engineering.

DEPARTMENT OF ENGLISH

ROBERT KAY GORDON, B.A. (Oxon.), M.A., Ph.D. (Toronto), Professor of English.

FREDERICK MILLET SALTER, B.A. (Dalhousie), M.A. (Chicago), Associate Professor of English.

*JOHN THOMAS JONES, M.A. (Alberta), B.A. (Oxon.), Assistant Professor of English.

CLARENCE RUPERT TRACY, B.A. (Toronto), Ph.D. (Yale), Lecturer in English.

MARY WILLAN WINSPEAR, M.A., Ph.D. (Toronto), Lecturer in English.

DEPARTMENT OF ENTOMOLOGY

*EDGAR HAROLD STRICKLAND, M.Sc. (Harvard), Professor of Entomology.

JOHN HUGH BROWN, M.Sc. (Alberta), Sessional Lecturer in Entomology.

DEPARTMENT OF FIELD CROPS

ARTHUR GILBERT McCALLA, B.Sc., M.Sc. (Alberta), Ph.D. (California), Professor of Field Crops

JAMES ROBERT FRYER, M.A. (Toronto), Ph.D. (California), Professor of Genetics and Plant Breeding.

ARTHUR WELLESLEY HENRY, M.S.A. (Saskatchewan), Ph.D. (Minnesota), Associate Professor of Plant Pathology.

BURTON CHARLES JENKINS, B.Sc. (Alberta), Assistant in Field Crops.
Research Assistants.

DEPARTMENT OF GENERAL LITERATURE AND CULTURE

Instructors selected from the Literary Departments.

DEPARTMENT OF GEOLOGY

JOHN ANDREW ALLAN, M.Sc. (McGill), Ph.D. (Massachusetts Institute of Technology), F.R.S.C., Professor of Geology.

*On War Service.

PERCIVAL SYDNEY WARREN, B.A. (Toronto), A.R.C.S. (London), Ph.D. (Toronto), F.R.S.C., Professor of Geology.

RALPH LESLIE RUTHERFORD, M.Sc. (Alberta), Ph.D. (Wisconsin), F.R.S.C., Associate Professor of Geology.

Sessional Assistant.

DEPARTMENT OF HISTORY

GEORGE MALCOLM SMITH, M.C., B.A. (Toronto), M.A. (Oxon.), Professor of History, Dean of the Faculty of Arts and Science.

MORDEN HEATON LONG, B.A. (McMaster), M.A. (Oxon.), Professor of History.

ROSS WILLIAM COLLINS, M.A. (Acadia), B.D. (Union Theological Seminary), Ph.D. (Columbia), F.R.Hist.S., Associate Professor of History.

*LEWIS GWYNNE THOMAS, M.A. (Alberta), Sessional Instructor in History.

DEPARTMENT OF HORTICULTURE

JAMES SHELDON SHOEMAKER, B.S.A. (Toronto), M.S. (Iowa State College), Ph.D. (Minnesota), Professor of Horticulture.

DEPARTMENT OF HOUSEHOLD ECONOMICS

MABEL PATRICK, B.A. (Toronto), M.A. (Columbia), Professor of Household Economics, Director of the School of Household Economics.

HAZEL MCINTYRE, B.Sc. (Alberta), M.S. (Ames), Lecturer in Household Economics.

GRACE LESLEY DUGGAN, B.Sc. (Alberta), M.Sc. (Chicago), Lecturer in Household Economics.

MURIEL EVELYN MARY RICHARDS, B.Sc. (Manitoba), Instructor in Household Economics.

DEPARTMENT OF MATHEMATICS

ERNEST WILSON SHELDON, M.A. (McGill), Ph.D. (Yale), Professor of Mathematics.

JOHN WILLIAM CAMPBELL, M.A. (Queen's), Ph.D. (Chicago), F.R.S.C., Professor of Mathematics.

ALEXANDER JOSEPH COOK, B.Sc. (Alberta), M.A. (Harvard), Ph.D. (Chicago), Associate Professor of Mathematics.

ERNEST SYDNEY KEEPING, B.Sc. (London), D.I.C., Assistant Professor of Mathematics.

DEPARTMENT OF MEDICINE AND CLINICAL MEDICINE

EGERTON LLEWELLYN POPE, B.A. (Queen's), M.D., C.M. (McGill), F.R.C.P. (London), F.R.C.P.(C), Professor of Medicine.

HEBER CARSS JAMIESON, M.B. (Toronto), F.R.C.P.(C), Professor of History of Medicine and Associate Professor of Medicine.

IRVING RUSSELL BELL, B.A., M.B. (Toronto), F.R.C.P.(C), Professor of Therapeutics and Assistant Professor of Clinical Medicine.

WALTER HEPBURN SCOTT, M.D., C.M. (McGill), F.R.C.P.(C), Clinical Professor of Medicine.

JOHN WILLIAM SCOTT, M.D., C.M. (McGill), F.R.C.P.(C), F.A.C.P., Associate Professor of Medicine.

*KENNETH HAMILTON, B.A. (Toronto), B.A. (Oxon.), M.B.B.Ch. (Oxon.), F.R.C.P.(C), M.R.C.P. (London), Assistant Professor of Clinical Medicine.

PERCY HARRY SPRAGUE, M.D. (Alberta), M.Sc. (Minnesota), F.A.C.P., Assistant Professor of Clinical Medicine.

THOMAS HAROLD FIELD, M.D., C.M., Instructor in Clinical Medicine.

*ROBERT KENNETH COLQUHOUN THOMSON, B.Sc., M.D. (Alberta), Instructor in Clinical Medicine.

GLEN ROSS DAVISON, M.D., C.M. (Queen's), Instructor in Clinical Medicine.

*EDWARD FERRIS DONALD, M.D. (Alberta), Instructor in Clinical Medicine.

*CHARLES BRAMBELL RICH, B.S., M.R.G.S., L.R.C.P. (London), F.R.C.P.(C), Instructor in Clinical Medicine.

LEONARD CHRISTOPHER HARRIS, M.D., C.M. (McGill), Instructor in Clinical Medicine.

JOSEPH BOGUE MacKAY, M.B.Ch.B. (Glasgow), Instructor in Clinical Medicine.

Cardiology—

CHARLES WATSON HURLBURT, M.B. F.R.C.P.(C), Clinical Professor of Cardiology.

*On War Service.

Dermatology—

HAROLD ORR, O.B.E., M.B., D.P.H. (Toronto), F.R.C.P.(C), Clinical Professor of Dermatology.

Paediatrics—

DOUGLAS BURROW LEITCH, B.A., M.B. (Toronto), F.R.C.P.(C), Clinical Professor of Paediatrics.

*JAMES CALDER, M.D. (Alberta), Instructor in Paediatrics.

Psychiatry—

RANDALL ROBERTS MacLEAN, M.D. (Alberta), Assistant Professor of Psychiatry.

WILLIAM JOHN McALISTER, M.D., C.M. (McGill), Instructor in Psychiatry.

Radiology—

RICHARD PROCTER, M.D. (Manitoba), Lecturer in Radiology.

*PATRICK HAMILTON MALCOLMSON, B.A. (Alberta), M.D. (Toronto), Assistant Instructor in Radiology.

Therapeutics—

IRVING RUSSELL BELL, B.A., M.B. (Toronto), F.R.C.P.(C), Professor of Therapeutics.

Anaesthesia—

ERNEST HAY WATTS, B.A., M.D. (Alberta), Lecturer in Anaesthesia.

JAMES ERNEST CARMICHAEL, B.Sc., M.D., C.M. (Queen's), Instructor in Anaesthesia.

Honorary Members—

GEORGE HENRY MALCOLMSON, B.A., M.D. (Toronto), Honorary Instructor in Radiology.

ANDREW FRANKLIN ANDERSON, M.D., C.M. (Manitoba), Honorary Instructor in Clinical Medicine.

DAVID LEWIS McCULLOUGH, B.A., M.D., B.C.L. (Trinity College), D.P.M. (London), Honorary Instructor in Psychiatry.

ARCHIBALD DUNCAN IRVINE, B.A. (McMaster), M.D. (Toronto), F.F.R. (London), Honorary Instructor in Radiology.

JOHN McDONALD OSWALD, M.B. (Toronto), Honorary Instructor in Anaesthesia.

DEPARTMENT OF MINING AND METALLURGY

NORMAN CHARLES PITCHER, B.Sc. (McGill), Professor of Mining Engineering.

KARL ADOLPH CLARK, M.A. (McMaster), Ph.D. (Illinois), Professor of Metallurgy.

EWALD OSCAR LILGE, M.Sc. (Alberta), Lecturer in Mining and Metallurgy.

DEPARTMENT OF MODERN LANGUAGES

EDOUARD SONET, M.A. (Alberta), Docteur d'Universite (Rennes), Professor of Modern Languages.

FRANCIS OWEN, M.A. (Toronto), Ph.D. (Chicago), Professor of Modern Languages.

BROTHER ANSBERT, B.A. (Manhattan College, N.Y.), M.A. (Fordham), Lecturer in Spanish.

ERICH MUELLER, M.A. (Alberta), Ph.D. (Northwestern), Lecturer in German.

*DENNIS McNEICE HEALY, B.A. (Alberta), Dip. d'Et. Sup., L-es-L. (Paris), Lecturer in Romance Languages.

ALBERT LOUIS CRU, A.M. (New York), B-es-L. (Paris), Sessional Professor of French.

MARY HELENA FAUNT, B.A. (Alberta), Sessional Instructor in French.

DEPARTMENT OF NURSING

*AGNES JEAN MACLEOD, B.A., B.Sc. (Alberta), M.A. (Columbia), R.N., Director of the School of Nursing, Lecturer in Public Health Nursing and Health Education.

HELEN GRIFFITH McARTHUR, B.Sc. (Alberta), M.A. (Columbia), R.N., Acting Director of the School of Nursing, Lecturer in Public Health Nursing and Health Education.

LILLIAN THOMPSON, B.Sc. (London), Diploma in Social Work (Toronto), Sessional Instructor in Social Work.

*On War Service.

Hospital Teaching Staff—

- HELEN SMITH PETERS, R.N. (Montreal General Hospital), Certificate, McGill School for Graduate Nurses, Superintendent of Nurses.
- MARGARET JANE DENNISTON, R.N. (Montreal General Hospital), Certificate, McGill School for Graduate Nurses, Assistant Superintendent.
- ELIZABETH ISABELLE GREIG, R.N. (Calgary General Hospital), Night Supervisor.
- MARGARET AUGUSTA EVANS, B.Sc. (Alberta), R.N. (University of Alberta Hospital), Instructor in Nursing.
- VIRGINIA PEARSON, B.Sc. (Alberta), R.N. (Moose Jaw General Hospital), Instructor in Nursing.

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

- JOHN ROSS VANT, B.A., M.D. (Manitoba), M.C.O.G., Professor of Obstetrics and Gynaecology.
- JERMYN OSCAR BAKER, M.D., C.M. (Queen's), F.A.C.S., F.R.C.S.(C), M.C.O.G., Professor of Obstetrics and Gynaecology.
- ALLAN DAY, M.B. (Toronto), Assistant Professor of Obstetrics and Gynaecology.
- *ALEXANDER HAVELOCK MACLENNAN, B.Sc., M.D. (Alberta), Instructor in Obstetrics and Gynaecology.
- THOMAS ROY CLARKE, M.D. (Alberta), Instructor in Obstetrics and Gynaecology.
- RONALD HILBORN HORNER, M.D. (Alberta), Instructor in Obstetrics and Gynaecology.

DEPARTMENT OF OPHTHALMOLOGY AND RHINO-OTO-LARYNGOLOGY

- MARK ROBERT LEVEY, M.D., C.M. (McGill), D.L.O. (England), Professor of Ophthalmology and Rhino-oto-laryngology.
- WILLIAM SLOANE SEALE ARMSTRONG, M.D., C.M. (McGill), Lecturer in Rhino-oto-laryngology.

DEPARTMENT OF PATHOLOGY

- JOHN JAMES OWER, B.A., M.D., C.M. (McGill), F.R.C.P.(C), Professor of Pathology, Provincial Serologist, Acting Dean of Faculty of Medicine.
- JOHN WATT MACGREGOR, B.A., M.D. (Alberta), Associate Professor of Pathology.
- MORTON ELDRED HALL, B.A., M.B. (Toronto), Assistant Professor of Pathology.
- *MOSES WEINLOS, B.A., M.D. (Alberta), Instructor in Pathology.
- *PATRICK HAMILTON MALCOLMSON, B.A. (Alberta), M.D. (Toronto), Instructor in Pathology.
- MITRO MICHAEL SEREDA, M.D. (Alberta), Instructor in Pathology.
- GEORGES PHILIPPE FORTIER, B.A. (Laval), M.D. (Alberta), Assistant Instructor in Pathology.
- CHARLES LEFEBVRE, B.A. (Laval), M.D. (Alberta), Honorary Assistant Instructor in Pathology.

DEPARTMENT OF PHARMACY AND MATERIA MEDICA

- ARNOLD WHITNEY MATTHEWS, M.Sc. (Alberta), Ph.D. (Florida), Professor of Pharmacy and Director of the School of Pharmacy.
- MERVYN JAMES HUSTON, M.Sc. (Alberta), Lecturer in Pharmacy.

DEPARTMENT OF PHILOSOPHY AND PSYCHOLOGY

- JOHN MALCOLM MacEACHRAN, M.A., Ph.D. (Queen's and Leipzig), LL.D., Professor of Philosophy.
- JOHN MACDONALD, M.A., D.Litt. (Edinburgh), Professor of Social Psychology and Social Philosophy.
- *DOUGLAS SMITH, M.A. (Queen's), Ph.D. (Harvard), Lecturer in Psychology.

DEPARTMENT OF PHYSICS

-, Professor of Physics.
- ROBERT JAMES LANG, B.A. (McMaster), M.A., Ph.D. (Toronto), F.A.A.S., F.A.P.S., F.R.S.C., Professor of Physics.
- LAWRENCE HOWARD NICHOLS, B.A. (McGill), M.A. (Alberta), F.R.M.S., Associate Professor of Physics.
- EDWARD HUNTER GOWAN, B.A., B.Sc. (Alberta), Ph.D. (Oxon.), Assistant Professor of Physics.

*On War Service.

HAROLD ELFORD JOHNS, B.A. (McMaster), M.A., Ph.D. (Toronto), Lecturer in Physics.
 DONALD BURTON SCOTT, B.A. (Toronto), Ph.D. (McGill), Sessional Lecturer in Physics.
 HERMON REGINALD MILLEY, B.A., M.A. (British Columbia), Instructor in Physics.
 Sessional Demonstrators.

DEPARTMENT OF PHYSIOLOGY AND PHARMACOLOGY

ARDREY WHIDDEN DOWNS, M.A. (Philadelphia), M.D. (Pennsylvania), D.Sc. (McGill), F.A.A.A.S., F.A.C.P., Professor of Physiology and Pharmacology.
 FLOYD SILAS BEVERLY RODMAN, M.Sc. (Saskatchewan), Ph.D. (Minnesota), Assistant Professor of Physiology and Pharmacology.
 JOHN FERGUSON, B.A. (Toronto), A.M. (Stanford), Ph.D. (Northwestern), Lecturer in Physiology and Pharmacology.

DEPARTMENT OF POLITICAL ECONOMY

GEORGE ALEXANDER ELLIOTT, M.A. (Manitoba), Professor of Political Economy.
 ANDREW STEWART, B.S.A., M.A. (Manitoba), Assistant Professor in Economics and Agricultural Economics.
 HENRY WELDON HEWETSON, B.A. (Toronto), M.A. (British Columbia), Assistant Professor of Political Economy.

DEPARTMENT OF SOILS

FRANK ARCHIBALD WYATT, B.S.A. (Utah), M.S., Ph.D. (Illinois), Professor of Soils.
 JOHN DAWSON NEWTON, B.S.A. (McGill), Ph.D. (California), Professor of Soils.
 *VLADIMIR IGNATIEFF, B.Sc. (London), M.Sc. (Alberta), Ph.D. (Toronto), A.I.C., Lecturer in Soils and Research Assistant.
 ALBERT STEPHEN WARD, B.S.A., M.Sc. (Alberta), Acting Lecturer.

DEPARTMENT OF SURGERY AND CLINICAL SURGERY

WILLIAM FULTON GILLESPIE, M.A. (Alberta), M.B., M.S. (Toronto), F.R.C.S.(C), F.A.C.S., Professor of Surgery.
 HOWARD HAVELOCK HEPBURN, M.D., C.M. (McGill), F.R.C.S. (Edinburgh), F.A.C.S., F.R.C.S.(C), Professor of Neurosurgery and Associate Professor of Surgery.
 GORDON CAMERON GRAY, M.B. (Toronto), F.A.C.S., F.R.C.S.(C), Associate Professor of Surgery.
 JOHN KEITH FIFE, M.D., C.M. (McGill), Assistant Professor of Clinical Surgery.
 JOHN ALBERT McPHERSON, M.B. (Toronto), Lecturer in Clinical Surgery.
 NORMAN LLEWELLYN TERWILLEGAR, M.B. (Toronto), Lecturer in Clinical Surgery.
 NESBITT EDGAR ALEXANDER, M.D. (Alberta), F.A.C.S., Lecturer in Clinical Surgery.
 ROY LLEWELLYN ANDERSON, M.D. (Alberta), F.R.C.S.(C), F.A.C.S., Lecturer in Clinical Surgery.
 *WILLIAM CARLETON WHITESIDE, M.D. (Alberta), F.R.C.S.(C), F.A.C.S., Instructor in Clinical Surgery.
 EARDLEY SAMUEL ALLIN, B.Sc. (Alberta), M.D. (Toronto), F.R.C.S. (London), Assistant Instructor in Clinical Surgery.
 *EDWARD HITCHIN, M.D. (Alberta), Assistant Instructor in Clinical Surgery.
 *WALTER CAMPBELL MacKENZIE, B.Sc., M.D., C.M. (Dalhousie), M.S. (Minnesota), Assistant Instructor in Clinical Surgery.
 JOHN OROBKO, M.D., C.M. (McGill), F.A.C.S., Assistant Instructor in Clinical Surgery.
 WALTER STIRLING ANDERSON, B.Sc. (Alberta), M.D., M.S. (Toronto), F.R.C.S.(C), Assistant Instructor in Clinical Surgery.
 *WILLIAM SEYMOUR ARCHIBALD, B.A. (Alberta), M.D., C.M. (McGill), Assistant Instructor in Clinical Surgery.
 WILLIAM WORTH EADIE, M.D. (Alberta), Assistant Instructor in Clinical Surgery.

*On War Service.

Orthopaedic Surgery—

FRANK HASTINGS HAMILTON MEWBURN, B.Sc., M.D., C.M. (McGill), F.R.C.S.(C), Clinical Professor of Orthopaedic Surgery.

ROBERT GRAHAM HUCKELL, M.D., C.M. (McGill), F.A.A.O.S., Assistant Professor of Orthopaedic Surgery.

Urologic Surgery—

GORDON NICHOLS ELLIS, B.A., M.D., C.M. (Queen's), Clinical Professor of Urologic Surgery.

*GORDON NEIL TUCKER, M.D. (Toronto), Instructor in Neurologic Surgery.

Surgical Anatomy—

EVAN GREENE, M.D., C.M. (McGill), F.R.C.S. (Edinburgh), F.A.C.S., F.R.C.S.(C), Lecturer in Surgical Anatomy.

Honorary Members—

WILFRED ALFRED WILSON, M.D., C.M. (McGill), F.A.C.S., F.R.C.S.(C), Honorary Professor of Clinical Surgery.

THE HONORABLE ARISTIDE BLAIS, Senator, M.D., B.S. (Laval), F.A.C.S., Honorary Professor of Clinical Surgery.

DEPARTMENT OF ZOOLOGY

WILLIAM ROWAN, M.Sc., D.Sc. (London), F.Z.S., M.B.O.U., F.R.S.C., Professor of Zoology.

WINIFRED HUGHES, M.A. (Saskatchewan), Ph.D. (Chicago), Assistant Professor of Zoology.

RICHARD BIRNIE MILLER, M.A., Ph.D. (Toronto), Lecturer in Zoology.

STAFF OF THE FACULTY OF LAW

MALCOLM MURRAY MacINTYRE, B.A. (Mount Allison), LL.B., LL.M., S.J.D. (Harvard), Professor of Law, Dean of the Faculty of Law.

THE HONORABLE MR. JUSTICE FORD, B.C.L. (Trinity), D.C.L. (Toronto), Honorary Professor of Law.

GEORGE HOBSON STEER, K.C., M.A. (Queen's), Professor of Law.

THE HONORABLE MR. JUSTICE TWEEDIE, B.A., D.C.L. (Mount Allison), LL.B. (Harvard), Special Lecturer in Law.

RONALD MARTLAND, K.C., B.A., LL.B. (Alberta), B.C.L. (Oxon.), Sessional Instructor.

LAURENCE YEOMANS CAIRNS, K.C., B.A. (Alberta), Sessional Instructor.

*HENRY ALEXANDER DYDE, B.A. (Alberta), B.C.L. (Oxon.), Sessional Instructor.

WILLIAM GEORGE AUXIER, B.A., LL.B. (Alberta), Sessional Instructor.

CARLETON WILLIAM CLEMENT, K.C., B.A., LL.B. (Alberta), Sessional Instructor.

EDWARD WILLIAM SCOTT KANE, B.A., LL.B. (Alberta), Sessional Instructor.

ALFRED THOMAS McLEAN, B.A., LL.B. (Alberta), Sessional Instructor.

FRANK JOST NEWSON, B.A., LL.B. (Alberta), Sessional Instructor.

ALEXANDER SMITH, B.A., LL.B. (Alberta), Sessional Instructor.

SYDNEY BRUCE SMITH, K.C., B.A. (Alberta), Sessional Instructor.

DEPARTMENT OF EXTENSION

DONALD CAMERON, M.Sc. (Alberta), Director.

JESSIE FLEMING MONTGOMERY, B.A. (Alberta), Extension Librarian.

SYLVAN HILLERUD, B.S.A. (Alberta), Assistant in Study Groups.

SIDNEY RISK, B.A. (British Columbia), Assistant in Dramatics.

DEPARTMENT OF PHYSICAL EDUCATION

*WILFRED GERVAIS MYATT, Director.

KATHLEEN EMILY BEATRICE FOSKETT, B.A. (Saskatchewan), Instructor in Physical Education for Women.

DEPARTMENT OF INDUSTRIAL RESEARCH

Co-operating with Research Council of Alberta

EDGAR STANSFIELD, M.Sc. (Manchester), Research Professor: fuels.

KARL ADOLPH CLARK, M.A. (McMaster), Ph.D. (Illinois), Professor of Metallurgy: bituminous sands.

*On War Service.

- JOHN ANDREW ALLAN, M.Sc. (McGill), Ph.D. (Massachusetts Institute of Technology), F.R.S.C., Professor of Geology: geological surveys.
- NORMAN CHARLES PITCHER, B.Sc. (McGill), Professor of Mining Engineering: mining industry.
- EDWARD HERBERT BOOMER, B.Sc. (British Columbia), M.Sc., Ph.D. (McGill), F.C.I.C., F.R.S.C., Professor of Chemical Engineering: petroleum and natural gas.
- WILFRED ERNEST CORNISH, B.Sc. (Manitoba), M.Sc. (Alberta), Associate Professor of Electrical Engineering: rural electrification.
- WILLIAM ALBERT LANG, M.Sc. (Alberta), Assistant Research Professor: fuels.
- JOHN SCOVIL CHARLESWORTH, B.Sc. (Alberta), Chemist: gasoline.
- EDWARD TIPMAN, Assistant Chemist: gasoline.
- MARGARET HELEN PIKE, B.Sc. (Alberta), Assistant Chemist: gasoline.

INDUSTRIAL LABORATORIES

- JAMES ALEXANDER KELSO, M.Sc. (Queen's), Director and Provincial Analyst.
- CHARLES EMERSON NOBLE, B.A., B.Sc. (Alberta), Assistant.

PROVINCIAL LABORATORY

- *ALLAN C. RANKIN, C.M.G., M.D., C.M., D.P.H., F.R.C.P. (C), Director, Provincial Bacteriologist.
- J. J. OWER, B.A., M.D., C.M., F.R.C.P. (C), Acting Director, Pathologist, Provincial Serologist.
- R. M. SHAW, B.A., M.D., C.M., D.P.H., F.R.C.P. (C), Acting Provincial Bacteriologist.
- JOHN WATT MacGREGOR, B.A., M.D. (Alberta), Assistant Pathologist.
- JAMES AUGUSTUS ROMEYN, B.A. (Toronto), M.D. (Toronto), Assistant in Bacteriology.

*On Active Service.

ORGANIZATION OF THE UNIVERSITY

HISTORY

The University of Alberta was created by an act of the first session of the first legislature of the Province, 1906, which set up the legal framework on which the institution could be constructed. An amendment to the act, 1907, authorized the Lieutenant Governor in Council to appoint a president, and the Government availed itself of this authority to select Dr. Henry Marshall Tory, Professor of Mathematics in McGill University, who entered on his duties January 1st, 1908.

Under the University Act all resident graduates of British and Canadian universities were entitled to become members of convocation by registering before a specified date, and three hundred and sixty-four persons availed themselves of this privilege. The convocation thus constituted proceeded to the election of five members of Senate, and on the result of the poll being declared March 18, 1908, the Government nominated its ten representatives to that body also. The late Mr. Justice Stuart, of Calgary, was at the same time elected chancellor.

The President and Senate at their first meeting, March 30th, 1908, took the necessary steps to organize the Faculty of Arts and Science, and decided to open classes in September. At a subsequent meeting held in Calgary on July 6th, four professors were appointed to chairs in the Faculty. Classes were begun on September 23rd, with a registration of forty-five.

At the second session of the second legislature, November, 1910, a new University Act was passed, the general effect of which was to separate the business management of the University from the supervision of its educational affairs. For the control of the former a Board of Governors was constituted, to consist of the Chancellor and the President ex-officio, and nine members appointed by the Lieutenant Governor in Council. For the latter purpose the Senate, in a considerably augmented form, was continued. Convocation was further defined to include all graduates of the University of Alberta in addition to the original members under the act of 1906. The new Board of Governors was constituted in January, 1911, and the new Senate in March. This form of university government remained substantially unaltered until 1942, when a new Act reduced the size of the Senate, and transferred part of its academic functions to the General Faculty Council.

Up to 1911 the university classes were conducted in rented premises, first, a portion of the Duggan Street (Queen Alexandra) public school, afterwards, a part of the Strathcona high school, and it was in the latter that the first graduation exercises were held on May 16th, 1911. But during the summer Athabasca Hall was erected, and became available for use, partly as classrooms, partly as dormitory, in September. This was rapidly followed by Assiniboia Hall, 1912-13, and Pembina Hall, 1914. All of these buildings, after serving for a time both for classes and residential purposes, were finally devoted entirely to the latter.

Subsequent additions to the university buildings were the Arts Building, opened in October, 1915, the Engineering Laboratories in 1919, and the Medical Building in 1921, while in 1922, by an agreement with the city of Edmonton, the University

secured the former Strathcona Hospital. In 1929 this hospital became an institution functioning directly under the Executive Council of the Province, but the University's rights were fully safeguarded in respect of the composition of the governing board and the provision for clinical instruction. The affiliated denominational colleges, St. Stephen's (United Church of Canada), and St. Joseph's (Roman Catholic), erected buildings on university sites in 1910 and 1927 respectively. In the summer of 1928 the plant pathology and cereal crops laboratory was built immediately south of Pembina Hall, for the carrying out of investigations into plant breeding and plant diseases; in this work the University co-operates with the National Research Council and the federal Department of Agriculture.

The original Faculty of Arts and Science was first expanded by the creation of a Department of Extension in 1912, with the idea of achieving more fully the important function of reaching in its educational work the people of the Province at large. In 1912 also the Faculty of Law was created with the power of recommending to the Senate candidates for the LL.B. degree. In the autumn of 1913 the Department of Civil Engineering and allied subjects ceased to form a portion of the original Faculty of Arts and Science, and was erected into the Faculty of Applied Science. At the same time, October, 1913, instruction began in the Faculty of Medicine, which finally was enabled, largely owing to the generosity of the Rockefeller Foundation in placing half a million dollars at the disposal of the University for medical teaching purposes, to offer a complete medical course in 1923. The fifth faculty of the University came into being in 1915 with the creation of the College of Agriculture, for the growing demands of which it became necessary in the spring of 1919 to acquire a tract of six hundred acres a short distance south of the original university property. To this location the farm buildings originally placed toward the inner end of the first university property were removed in the summer of 1930; these now offer, with several important additions such as that of a model grain elevator, a fairly complete demonstration of all sides of farm life in western Canada. Teacher training courses, initiated in 1924 by the Department of Philosophy for graduates in Arts and Science proceeding to the B.Ed. degree, led to the establishment of the School of Education in 1928. This became the College of Education in 1939 and the Faculty of Education in 1942.

The six faculties mentioned above received their executive officers in the persons of the following deans: the Faculty of Arts and Science, Professor Kerr, 1914; the Faculty of Agriculture, Professor Howes, in 1915; the Faculty of Medicine, Professor Rankin, 1920; the Faculty of Applied Science, Professor Boyle, 1921; the Faculty of Law, Professor Weir, 1926; the Faculty of Education, Professor LaZerte, 1942. Professor Wilson replaced Professor Boyle in 1929 when the latter joined the staff of the National Research Council at Ottawa, and when Dean Kerr became President, as subsequently noted, he was succeeded by Professor Alexander as Dean of the Faculty of Arts and Science.

In addition to the faculties proper, provision was made for certain other branches of instruction as follows. Dentistry was organized under the Faculty of Medicine in 1917, and was enabled in 1924 to offer a complete five years' course leading to a degree. In 1930 Dentistry was organized as a school under the Faculty of Medicine. Pharmacy, which began its work as a department of the Faculty of Medicine in 1914, was in the spring of 1917 erected into a School of Pharmacy attached to the

Faculty of Arts and Science. In 1938 the School of Pharmacy was placed under the jurisdiction of the Faculty of Medicine. Other schools which have grown up under the Faculty of Arts and Science are the School of Commerce (1928), the School of Education noted above (1928), and the School of Household Economics (1928), while the School of Nursing (1924) is attached to the Faculty of Medicine.

In 1920 the Province and the University combined to form a Scientific and Industrial Research Council for the general purpose of conducting economic research into the resources of the Province of Alberta, and two research professorships were created under this Council to study the questions of fuels and bituminous sands.

The University responded in common with the country at large to the special demands of the years 1914-1918, and sent into various branches of the military and naval forces of the empire some four hundred and seventy-five representatives, of whom eighty-two died in the war. Their service was given tangible recognition by the dedication of the memorial organ and a bronze tablet in the Arts Building on November 11th, 1925, while the services of all participants were permanently recorded on the roll of honor at the entrance of Convocation Hall, unveiled November 11th, 1928.

After twenty years of public service as President of the University, Dr. Henry Marshall Tory resigned in April, 1928, to become President of the National Research Council of Canada. The Government of the Province nominated to succeed him on September 1, 1928, Dr. Robert Charles Wallace, formerly Professor of Geology in the University of Manitoba.

Mr. Justice Stuart, first Chancellor of the University, died on March 5, 1926, after eighteen years in office. He was succeeded by the late Mr. Justice Beck, who filled out the balance of his term. In April, 1927, Dr. A. C. Rutherford, first Premier of the Province and author of the original act establishing the University, was elected by Convocation to the Chancellorship. Dr. Rutherford died June 11, 1941. Mr. Justice Ford, a member of the Appellate Division of the Supreme Court of Alberta, was appointed to fill out the balance of his term, and later was confirmed in office under the new Act of 1942.

In May, 1929, the University celebrated its coming of age by appropriate ceremonies in which the first President and a large number of the alumni participated.

On the recommendation of a committee which had been appointed to consider the advisability of granting permission to qualified institutions to offer instruction in a limited group of subjects in the second year course in arts and science, the Senate approved of the principle of junior college affiliation in December, 1930. Conditions were laid down with reference to qualifications of members of the staff, and equipment of laboratories and library. The application of Mount Royal College of Calgary, which had fulfilled the conditions laid down by the Senate, was approved in May, 1931, and the students were admitted to subjects in the second year in arts and science in that institution in September, 1931.

In 1933 the Carnegie Corporation, of New York, made a gift of \$30,000 to the University, to be administered through the Extension Department, in order to stimulate the cultivation of the drama and appreciation of music and art, in the rural districts of the Province. The Corporation, after a careful review of the

work accomplished in the years 1933-5, decided in October, 1935, to continue its assistance for a further period of two years at the same rate. The University has received from the same body a further gift of \$15,000 to aid in the purchase of books for the Library, for undergraduate reading in the liberal arts and sciences. Intimation was received from the Carnegie Corporation in December, 1933, of a gift of \$50,000, to be expended on some single project which would commend itself to the Corporation. It was later decided that this gift be applied to the encouragement of research in all departments of knowledge in the University, and a committee of General Faculty Council was set up to advise in the allocation of the funds.

With the convocation ceremonies of May, 1933, the University completed twenty-five years of service in teaching and research. The occasion was fittingly observed. Through the instrumentality of the General Faculty Council, a booklet was issued in which were recorded the achievements of the University in teaching, extension and research during those years. A series of lectures was given dealing with developments in important fields of thought in the last quarter-century, and these lectures were subsequently issued in book form. Well merited recognition was accorded four members of the teaching staff who had given signal service to the University during this period, when on recommendation of the Senate the Chancellor conferred the degree of doctor of laws on Professor W. H. Alexander, Professor E. K. Broadus, Dean W. A. R. Kerr, and Professor J. M. MacEachran.

On May 19, 1936, President R. C. Wallace accepted the Principalship of Queen's University, Kingston, Ontario, and terminated his active connection with the University of Alberta on August 31, after eight years of service. On October 7 the Government of the Province nominated as his successor Professor William Alexander Robb Kerr, Dean of the Faculty of Arts and Science in the University of Alberta. President Kerr was formally installed on Thursday, November 5. Professor W. H. Alexander was appointed at the same time Dean of the Faculty of Arts and Science. Upon his resignation to join the staff of the University of California, Professor G. M. Smith was named by the Board of Governors as his successor, January, 1938. Professor E. A. Howes, first Dean of the Faculty of Agriculture, died in February, 1940. He was succeeded by Professor Robert Newton, who returned to the University from the National Research Council in Ottawa.

President W. A. R. Kerr resigned in August, 1941, after thirty-two years of service in the University. Professor Robert Newton, Dean of Agriculture, was appointed Acting-President, and confirmed as President in May, 1942.

In the fall of 1941, the Provincial Government named a special committee to survey the work and affairs of the University. The recommendations of this committee led to important changes in the University Act, also to the establishment of the Faculty of Education and the modification of matriculation requirements to integrate these more closely with the progressive educational program of the secondary schools.

The World War which began in September, 1939, has already caused substantial adjustments in the life of the University. Students and staff in large numbers have enlisted or transferred to war activities. Courses in Medicine, Dentistry, and Education have been accelerated to help meet the urgent need for more graduates in these fields. Both men and women students are combining special training for the armed and auxiliary services with their regular academic

work. Technical training courses for enlisted men are carried on in co-operation with the Department of National Defence. The University residences were turned over for use by an air training school in 1941. Research laboratories are mainly occupied with war projects. More and more the University is being changed to a full war basis.

CONSTITUTION

The Constitution of the University may be found in chapter 4 of the Revised Statutes of Alberta, 1942, being the University Act, 1942. A brief account of the chief officers and organs of the University follows:

1.—The Visitor.

The Lieutenant-Governor of the Province as representative of His Majesty the King in right of the Province is *ex officio* the Visitor of the University.

2.—The Chancellor.

The Chancellor is elected for a term of four years by the members of Convocation. The Chancellor is the Chairman of Convocation. He confers all degrees. He is *ex-officio* a member of the Board of Governors and of the Senate.

3.—The President.

The President is the chief executive officer of the University. He is appointed by the Lieutenant-Governor in Council. He is *ex officio* a member of the Board of Governors, of the Senate, and of all faculty councils. He presides in General Faculty Council and in other faculty councils when he is present. He is entrusted with the general supervision of the academic work of the University and of the teaching staff and of the administrative staff concerned with academic work. He makes recommendations to the Board of Governors in respect of all appointments to the teaching staff and to the administrative staff of the University concerned with academic work and in respect of all promotions and removals of such members of the staff.

4.—The Board of Governors.

The Board of Governors is a body corporate under the name and style of "The Governors of the University of Alberta." The Board consists of the Chancellor, the President of the University, the President and Vice-President of the Alumni Association, the Deputy Provincial Treasurer, the Deputy Minister of Education, and the chairman and six other persons appointed by the Lieutenant Governor in Council.

The conduct, management, and control of the University and all its property, revenue, business, and affairs are vested in the Board. The Board appoints the deans of all faculties, all members of the teaching staff, the Librarian, the Bursar, the Registrar, and all members of the administrative staff, but no dean of any faculty nor any member of the teaching staff of the University may be appointed unless first nominated by the President of the University. The Board provides for the maintenance of buildings and the erection of new buildings. It has authority to purchase and acquire such property as it may deem necessary for the purposes of the University. It fixes the various fees charged in connection with university courses,

and it makes financial provision for the establishment of new faculties and departments.

All residuary powers, which by the terms of the University Act are not specifically granted to any other person or body of persons, are vested in the Board of Governors. The Board makes an annual report to the Lieutenant Governor in Council. This report is transmitted to the Legislative Assembly of the Province by the Minister of Education.

5.—The Senate.

The Senate of the University consists of the Chancellor, the President, the Chairman of the Board of Governors, the Principal of St. Stephen's College, the Rector of St. Joseph's College, the Rector of St. Aidan's College, the Supervisor of Schools, the Principal of the Provincial Institute of Technology and Art, the Principal of Mount Royal Junior College, the President and Vice-President of the Alumni Association, a representative of the Dean's Council, two representatives of the General Faculty Council, the Director of the Department of Extension, the President of the Students' Union, and nine members selected by the foregoing to represent agriculture, business, labour, industry, public education, and organizations devoted to social and cultural welfare.

Under the University Act of 1942, more emphasis is placed upon the function of the Senate as a bridge between the University and the life and activities of the Province, and less upon academic duties. It is empowered to inquire into all matters that might tend to enhance the usefulness of the University. It is still responsible for recommending to Convocation the conferring of honorary degrees, this being a matter of public interest, but degrees in course are now recommended by the General Faculty Council. The Senate also continues to legislate with respect to student government, but the day-to-day administration of discipline rests with the Deans' Council.

6.—Convocation.

Convocation consists (a) of the surviving members of the original group of 364 who registered under the original University Act of 1906, together with all such persons who have been admitted *ad eundem gradum* in the University of Alberta and have become duly registered; and (b) of all graduates of the University of Alberta.

Convocation elects the Chancellor and is authorized, if fifteen of its members by writing demand a meeting, to require the Chancellor to convoke the same, but such a meeting must be for a specific subject duly set forth in a letter of demand and no other subject may be discussed at the meeting.

The Chancellor is the Chairman of Convocation.

7.—Faculty Councils.

The General Faculty Council consists of the President, the Deans, the full Professors in all the Faculties, the Director of the Department of Extension, the Librarian, and the Registrar. The General Faculty Council, subject to the authority of the Board of Governors, is the senior academic body of the University. It arranges time-tables, approves courses and examination results, recommends degrees, and hears appeals by students and others from decisions of Faculty Councils.

Each faculty of the University has a Council consisting of the President, the Dean of the Faculty, the professors and associate-professors, such other members of the teaching staff of the Faculty as the Board of Governors may determine, and a representative of each of the appropriate professional societies associated with the University. Each Faculty Council, subject to the authority of the General Faculty Council, arranges the courses of study falling within its jurisdiction; it arranges for the setting of examinations and for making examination returns to the General Faculty Council. It deals with petitions and memorials from students registered in the Faculty.

The Deans' Council, consisting of the President and the Deans of all the Faculties, has advisory, executive, and disciplinary functions.

UNIVERSITY LIBRARY

The Library of the University contains 76,000 accessioned volumes (Dec., 1942).

The main reading room is in the Arts Building; during the session about 1,200 of the books required in connection with the various classes are kept on open shelves in this room for the convenience of students. The stack room is below the reading room, and all students may borrow books from it, but only honor students are allowed to study in the stack room.

The Medical Building has its own reading room, in which the medical section of the library is housed, and the Agricultural Building has a similar separate reading room.

The Law Library occupies a separate room in the Arts Building, and there are separate reading rooms for the Department of Chemistry, and for the Faculty of Education, whose books are temporarily housed in St. Joseph's College.

The Scientific and Industrial Research Council also has a reading room for the use of research workers.

The Library subscribes to over 425 of the most important periodicals, which are available for consultation.

UNIVERSITY BOOK STORE

For the convenience of students, the University maintains a book store where text-books prescribed in the university calendar may be obtained. Stationery, drawing materials, university pennants and other accessories are also kept in stock.

MATRICULATION

MATRICULATION EXAMINATIONS

Examinations for admission to the University are conducted each year, in June and August, under the authority of the High School and University Matriculation Examinations Board. Applications for these examinations should be made about two months before the date of examination to the chairman of the High School and University Matriculation Examinations Board, Department of Education, Government Buildings, Edmonton.

MATRICULATION REQUIREMENTS

Senior matriculation in courses prescribed by the Faculties and listed on the pages immediately following is normally required for admission to any Faculty of the University. The courses of senior matriculation are those offered in Grade XII of the High Schools of Alberta and their prerequisites *or* certain courses (excluding English and Social Studies) presently to be offered in the University to students unable to complete matriculation in rural schools where all subjects of matriculation may not be offered, *or* equivalent courses taken outside Alberta.

To provide only for students who have followed the new curriculum in the schools of Alberta to the High School Graduation Diploma without being able to obtain all the courses of matriculation into certain Faculties because such courses have not been available in their local schools, the Faculty of Arts and Science in 1943-44 (and presumably thereafter) will offer courses at the Grade XII level in French, German, Latin and Greek, in Mathematics, and in Biology, Chemistry and Physics. For admission to these preliminary courses, the requirement will be at least B standing in the High School Graduation Diploma including English and Social Studies and evidence that the matriculation course desired was not available in the school. It is anticipated that a diligent student who enters the University in this way with only one deficiency will be able to complete the work of the General Course for the B.A. or B.Sc. degree in the Faculty of Arts and Science in the normal time of three years; that a student who enters in this way with two deficiencies may complete the General Course in three years if willing to attend one Summer Session in addition to the regular terms. Others are warned that admission to the University by the High School Graduation Diploma will mean an additional year in the time normally required for a University degree or diploma.

In the session of 1942-43, a student with 100 or more high school credits and an average standing of 65% was not excluded from University courses essential to the war-effort because of the lack of one prescribed matriculation subject provided that subject was not a specific prerequisite for the desired University course. For example, an engineering student was not excluded for lack of a foreign language. It is probable that a similar emergency relaxation of admission requirements will be authorized for 1943-44. However, if it be necessary by reason of limited accommodation to establish attendance quotas, fully qualified students will have priority.

It is required that matriculants from the High Schools of Alberta shall have—

- (a) a high school graduation diploma with
- (b) credit in the required courses of Grade XII as set forth below in the prescriptions of the various faculties, and
- (c) all prerequisites for the required Grade XII courses which are—
 - for English 3: English 1 and 2,
 - for Social Studies 3: Social Studies 1 and 2,
 - for Algebra 2: Algebra 1,
 - for Trigonometry and Analytical Geometry: Geometry 1,
 - for Physics 2: Physics 1,
 - for Chemistry 2: Chemistry 1,
 - for Biology 2: no pre-requisite,
 - for French 3: French 1 and 2,
 - for German 3: German 1 and 2,
 - for Latin 3: Latin 1 and 2.

In the prerequisite courses, a minimum grading of B is required. Students of mature age or other students whose high school preparation has not been regular may in certain circumstances be excused some of the junior high school requirements. Such students should apply to the Registrar for specific information.

Students who have completed matriculation in accordance with the requirements set forth in previous calendars should submit their credits for evaluation.

Students seeking credit for matriculation courses taken outside Alberta should submit their documents to the Registrar of the University for evaluation. A fee of two dollars is charged for this service.

GENERAL MATRICULATION

For admission to any faculty: standing in the following courses of Grade XII and in their prerequisite courses—

- 1. English 3.
- 2. Social Studies 3.
- 3. Algebra 2.
- 4. Trigonometry and Analytical Geometry.
- *5. Third unit of a foreign language.
- 6. Physics 2.
- 7. Chemistry 2.

*For particular language requirements in the various faculties and schools see details under respective faculty headings.

I.—FACULTY OF ARTS AND SCIENCE

For the degrees of B.A., B.Sc. and B.Com.: standing in the following courses of Grade XII and in their prerequisite courses—

- 1. English 3.
- 2. Social Studies 3.
- 3. Algebra 2.
- 4. Trigonometry and Analytical Geometry.
- *5. Third unit of a foreign language.
- 6 and 7. Two of: Physics 2, Chemistry 2, Biology 2.

*Students intending to enter the course leading to the Bachelor of Commerce degree should note that a modern language is required during the university course.

For the degree of B.A. only, in the case of students interested primarily in languages or social studies: standing in the following courses of Grade XII and in their prerequisite courses—

1. English 3.
2. Social Studies 3.
3. Third unit of a foreign language.
4. Third unit of a second foreign language.
- 5, 6 and 7. Three of: Algebra 2, Trigonometry and Analytical Geometry, Physics 2 or Chemistry 2, Biology 2.

For the degree of B.Sc. in Household Economics: the same as for the B.Sc. degree except that Physics 2 and Chemistry 2 are both required.

NOTE.—See regulations on page 32 regarding admission.

For the degree of B.H.Ec.: the same as for students from a School of Agriculture who enter the B.Sc. course in Agriculture. (See Agriculture below.)

II.—FACULTY OF APPLIED SCIENCE

For the degree of B.Sc. in Engineering: standing in the following courses of Grade XII and in their prerequisite courses—

1. English 3.
2. Social Studies 3.
3. Algebra 2.
4. Trigonometry and Analytical Geometry.
5. Physics 2.
6. Chemistry 2.
7. Third unit of a foreign language.

NOTE.—Students presenting Chemistry 2 *without* approved laboratory will be required to satisfy the Department of Chemistry as to their proficiency in laboratory work.

For the combined degrees of B.A. and B.Sc. in Engineering: a 60% average in courses prescribed for the degree of B.Sc. in Engineering.

NOTE.—See regulations on page 32 regarding admission.

III.—FACULTY OF MEDICINE

For the degrees of B.Sc., M.D.: a 60% average in the following courses of Grade XII and B standing in their prerequisite courses—

1. English 3.
2. Social Studies 3.
3. Algebra 2.
4. Trigonometry and Analytical Geometry.
5. Physics 2.
6. Chemistry 2.
7. French 3 or German 3 or Latin 3.

The above plus the first two years as prescribed for the combined B.Sc., M.D. course will constitute matriculation into the first year of the new five year course in Medicine. For detail prescription of these two years see page 84.

NOTE.—See regulation on page 32 regarding admission to Medicine and Dentistry.

For the degree of D.D.S.: Grade XII standing as above, plus the first year of the two years prescribed for matriculation into the B.Sc., D.D.S. course will constitute matriculation into the first year of the four year course in Dentistry.

NOTE.—See regulation on page 32 regarding admission to Dentistry.

For the combined degrees of B.Sc., D.D.S.: the same as for the degrees of B.Sc., M.D.

For the degree of B.Sc. in Nursing or the diploma in Nursing: a 60% average in the following courses of Grade XII and B standing in their prerequisite courses—

1. English 3.
2. Social Studies 3.
3. Algebra 2.
4. Trigonometry and Analytical Geometry.
5. Physics 2 or Biology.
6. Chemistry 2.
7. French 3 or German 3 or Latin 3.

For the B.Sc. degree in Pharmacy and the diploma in Pharmacy: two years of apprenticeship and at least B standing in the following courses of Grade XII and in their prerequisite courses—

1. English 3.
2. Social Studies 3.
3. Algebra 2.
4. Trigonometry and Analytical Geometry.
5. Physics 2.
6. Chemistry 2.
7. Latin 3.

IV.—FACULTY OF LAW

For the degree of LL.B.: Either the degree of B.A. or its equivalent as accepted by the Committee on Admissions, or registration for the combined degrees of B.A., LL.B.

For the combined degrees of B.A. and LL.B.: the same as for the degree of B.Sc. in the Faculty of Arts and Science.

V.—FACULTY OF AGRICULTURE

For the degree of B.Sc. in Agriculture: The High School diploma with B standing in the following courses and their prerequisite courses, *either*—

- I.—1. English 3.
2. Social Studies 3.
3. Algebra 2.
4. Trigonometry and Analytical Geometry.
5. Physics 2 or Chemistry 2.
6. The second unit of a foreign language.
7. One of Chemistry 2, Physics 2, Biology 2, or the third unit of the foreign language elected under heading 6,

or

- II.—A certificate of graduation from a Provincial School of Agriculture together with not less than 70 high school credits including English 2, Social Studies 2, Algebra 1, Geometry 1.

For the combined degrees of B.A. and B.Sc. in Agriculture: the same as for the degree of B.Sc. in the Faculty of Arts and Science.

VI.—FACULTY OF EDUCATION

For the degree of B.Ed. and for the Junior Diploma in Education: The High School Graduation Diploma with at least B standing in—

1. English 1, 2, 3.
2. Social Studies 1, 2, 3.
3. Algebra 1.
4. Geometry 1.
5. Physics 1 or Chemistry 1.
6. Biology 1 or Biology 2.
7. Health and Physical Education 1.
8. One of the following groups of courses:
 - (a) Algebra 2 and Chemistry 2.
 - (b) French 1 and 2; Latin 1 and 2; and *either* French 3 or Latin 3, both recommended.
 - (c) Stenography 1 and 2; Typewriting 1 and 2; Office Practice 1; Secretarial Training.
 - (d) Chemistry 2; Home Economics 1 and 2.
 - (e) An approved program of electives in Home Economics or Shop courses.

If the Grade XII courses under Heading 8 are not available in the high school in which the pupil qualifies for the High School Graduation Diploma the equivalent of French 3, Latin 3, Algebra 2 and Chemistry 2 may be obtained at the University under the arrangement to offer preliminary matriculation courses described on page 28.

9. Music 1 and Art 1 will not be required before September, 1945.

NOTE.—For admission to the course for the degree of B.Ed., the matriculation as prescribed for the Faculty of Arts and Science is accepted as an alternative to the above special matriculation.

For the combined degrees of B.A. and B.Ed.: the same as for the degree of B.A.

For the combined degrees of B.Sc. and B.Ed.: the same as for the degree of B.Sc.

For the combined degrees of B.Com and B.Ed.: the same as for the degree of B.Com.

FURTHER REGULATIONS GOVERNING ADMISSION

The courses of study in the University are open to men and women on equal footing.

Owing to limited facilities, it has been found necessary to restrict registration in certain faculties and schools. Students wishing to enter the Faculty of Applied Science or the School of Household Economics must submit applications to the Registrar before 31st August. Those who have an average of 65% in the required courses of Grade XII will be accepted to the limit of available accommodation. If further accommodation is available, students with an average below 65% will be considered with regard to academic standing and to priority of application.

For students entering the Faculty of Arts and Science to proceed later into Dentistry or Medicine, there are no restrictions beyond the matriculation requirements for admission to the first year, but for candidates for the D.D.S. degree there is a quota at the end of the first year; and for candidates for the combined degrees of B.Sc., M.D. or B.Sc., D.D.S. there is a quota at the end of the second year at the time of entrance to the professional faculty. All students wishing to enter the first professional year of Medicine or Dentistry are required to make application before June 1st. Consideration for admission to the limit of available accommodation will be given to those students who have an average of at least 65% in the work of the preceding year.

It must be distinctly understood that no student can be guaranteed admission to either Medicine or Dentistry on the basis of academic standing alone. It is very desirable that prospective students should arrange for a personal interview. The possession of personal qualities necessary for successful practice will be stressed. Further, any student whose performance in the work of any professional year is unsatisfactory to the Faculty will not be permitted to continue in the study of either Medicine or Dentistry.

Students in combined courses may not continue into the second year of such courses unless they successfully complete the first year with an average of 60%, except in the Faculty of Education where this rule does not apply. The 60% rule at the end of the first year is also applied in the School of Commerce.

MINIMUM LENGTH OF TIME REQUIRED TO COMPLETE COURSES

For the degrees of B.A., B.Com., B.Sc., or B.Sc. in Household Economics—three years after senior matriculation.

For the combined degrees of B.A.:B.Com.—five years after senior matriculation.

For the degrees of B.A. or B.Sc. with Honors in the Faculty of Arts and Science—four years after senior matriculation.

For the degree of B.Sc. in Pharmacy—three years after senior matriculation plus apprenticeship as required by the Alberta Pharmaceutical Association.

For the degree of B.H.Ec.—three years after graduation from a Provincial School of Agriculture.

For the degree of B.Sc. in Agriculture—four years after admission either with senior matriculation or with a certificate from a Provincial School of Agriculture as specified on page 31.

For the combined degrees of B.A.:B.Sc. in Agriculture—five years after senior matriculation.

For the degree of B.Sc. in Engineering—four years after senior matriculation.

For the combined degrees of B.A.:B.Sc. in Engineering—six years after senior matriculation.

For the degree of LL.B.—three years after B.A. degree.

For the combined degrees of B.A.:LL.B.—five years after senior matriculation.

For the degree of D.D.S.—Five years after senior matriculation.

For the combined degrees of B.Sc.:D.D.S.—six years after senior matriculation.

For the combined degrees of B.Sc.:M.D.—seven years after senior matriculation.

For the degree of B.Sc. in Nursing—five years after senior matriculation.

For the diploma in Nursing—three years after senior matriculation.

For the diploma in Pharmacy—two years after senior matriculation plus apprenticeship as required by the Alberta Pharmaceutical Association.

For the junior diploma in Education—two years after senior matriculation.

For the senior diploma in Education (B.Ed.)—three years after senior matriculation.

For the degree of B.Ed. (in Agric.) or B.Ed. (in H.Ec.)—four years after senior matriculation.

For the combined degrees of B.A., B.Ed.; B.Sc., B.Ed.; B.Com., B.Ed.; B.Sc. in H.Ec., B.Ed.—four years after senior matriculation.

For the combined degrees in honors Arts or Science and Education—five years after senior matriculation.

ADMISSION WITH ADVANCED STANDING

Students from other universities may be admitted to advanced standing. All applications for such admission should be addressed to the Registrar well in advance of the beginning of the session. Each application will be dealt with on its merits by the Committee on Admissions. Extramural credits from recognized universities may be accepted under certain conditions, but such credits will not be considered beyond the first year of university work.

CLASSIFICATION OF STUDENTS

Students are classified as graduate, undergraduate, partial, special and auditor.

Graduate students are those who hold the Bachelor's degree (B.A., B.Sc., B.Com., or B.Ed.), and are either pursuing special studies in advanced courses, or have been formally admitted upon the authority of the School of Graduate Studies, to candidacy for a higher degree.

Undergraduate students are those who have passed the full matriculation examination of the University or some other equivalent examination, and are taking a full undergraduate course leading to a degree.

Partial students are those who are fully matriculated but are not enrolled for a full year's work. For the purpose of assessment of fees, students who are taking more than two-thirds of a full year's work will be treated as full time students, and classified as undergraduates. In all cases this will be based on the number of hours required for the full year of the particular faculty in which the student is registered. Where a student is in this position as a result of advanced standing allowed for work previously done, the privilege is extended of filling in the registration with suitable extra courses.

Special students are those who, not belonging to one of the above classes of students, are pursuing the study of particular subjects. Such students may, subject to the approval of the Committee on Admissions, attend classes without previous examination, but any classes so taken cannot be credited towards a degree.

Auditors are those who, under special circumstances, have obtained the permission of the Registrar and the instructor in a course to be registered as auditors, and to attend occasional lectures in that course.

ACADEMIC HONORS

Under war conditions scholarships involving foreign residence are subject to withdrawal without further notice, and other scholarships may be similarly affected.

FIRST CLASS GENERAL STANDING

Those students, other than honor students, who, in the work of any one year, attain an average mark of not less than eighty per cent., are awarded first class general standing.

DEGREES WITH HONORS

See regulations under the Faculty of Arts and Science.

DEGREES WITH DISTINCTION

See regulations under the Faculty of Law.

***The university assumes liability for the payment of fellowships, scholarships, bursaries, prizes and other awards only to the extent that gifts from donors or returns from particular investments for these purposes will permit.**

Agriculture

A gold medal is offered annually by the Alberta Branches of the Canadian Society of Technical Agriculturists primarily on the basis of scholarship as shown in the two senior years in the undergraduate courses in Agriculture, the weighted average in all subjects to be not less than 75%. Consideration will be given as well to qualities of leadership, personality and character.

The Board of Governors of the University offers a scholarship of the value of \$50.00 to be awarded on the basis of the work of the first year in Agriculture, provided that an average of not less than 75% be obtained on the work of the year. Further, the award will be contingent upon the student's proceeding with the work of the second year and will be paid only after the student has been in actual attendance in the second year of the course.

Applied Science

The H. R. Webb Memorial Prize of \$25.00 is offered by the Association of Professional Engineers of Alberta to one graduating student with a general average of at least 75% in each of the civil, electrical, mining, and chemical engineering departments and on the basis of individual talent, application and diligent study. For the purpose of this award the academic record of the third and fourth years are considered. The Association also offers a prize of \$25.00 for the student making the best record in the first two years of Engineering, who, after the completion of his work in the University of Alberta, gives proof of registration in mechanical engineering at some other university.

The Board of Governors of the University offers a scholarship of the value of \$50.00 to be awarded on the basis of the work of the first year in Applied Science, under the same regulations as that offered in the Faculty of Agriculture.

The Alfred Driscoll Memorial Prize in Surveying, of the value of \$25.00 is offered annually to the student taking a full first year course in Engineering who makes the best academic record in Surveying, C.E. 5, based on the usual term and final examinations, provided that his general standing is satisfactory to the Applied Science Faculty Council.

Engineering Institute of Canada Prize for Third Year Students in Engineering. The Engineering Institute of Canada offers a prize of twenty-five dollars, open for competition to university students in Applied Science following all of the Prescribed courses in chemical, civil, electrical or mining engineering.

To be eligible a student must be a member of, and active in, such a students' engineering organization of the University as the Engineering Students' Society, the Mining and Geological Society, the Chemistry Club, or the Students' Branch of the American Institute of Electrical Engineers.

The recommendation for award shall be made, after the final examinations of the year, by a committee to be appointed by the Dean of Applied Science at a faculty meeting in the session.

The bases of award shall be (a) the average mark for the courses assigned to that year, this in no case to be less than 75%, and (2) the value of services rendered to a students' engineering organization of the University.

Webb Memorial Student Paper Competition: Each year the Engineering Students' Society awards three prizes of \$25.00, \$15.00 and \$10.00 for the three best student papers written and presented to the Society at its regular meetings. To be eligible, a student must be a member of the Engineering Students Society. The rules of the competition are set forth in the Society's constitution.

Arts and Science

The Governor-General's Gold Medal is awarded by His Excellency the Governor-General to the graduating student in the honors course in the Faculty of Arts and Science who has shown the highest distinction in scholarship.

The Board of Governors of the University offers a scholarship of the value of \$50.00 for competition among the men students of the first year in Arts and Science, on the same basis as in Agriculture.

The Edmonton Section of the Council of Jewish Women offers annually a scholarship of the value of \$50.00 to the student who takes the highest standing in the work of the first year of the Faculty of Arts and Science, provided that an average of not less than 75% be obtained on the work of the year. Further, the award will be contingent on the student's proceeding with the work of the second year and will be paid only after the student has been in actual attendance in the second year of his, or her, course.

The Edmonton B'nai B'rith Scholarship of the value of \$50.00 will be awarded to the student in honors in the second year of the Arts and Science courses; the award to be made on the basis of the highest standing in the work of that year, there being taken into consideration as well, the previous university record.

Chemistry

The Lehmann Prize in Chemistry, of the value of \$15.00 in books, is offered annually by the estate of the late Dr. A. L. F. Lehmann, formerly head of the

Department of Chemistry in the University. It is awarded to the student making the best record in Chemistry 1, provided the student otherwise secures a standing satisfactory to the faculty council and is carrying a full year's work.

The Paul Edward Macleod Memorial Prize in Chemistry of the value of \$25.00 was provided by the late Mrs. J. E. A. Macleod, Calgary, in memory of her son, who died while a student of the university. The award will be made to the student obtaining the highest standing in organic chemistry (Chemistry 42) provided the student otherwise secures a standing satisfactory to the faculty council and is carrying the full year's work. The prize will be applied to the payment of fees on the next succeeding academic year of the University.

Classics

The Monica Jones Aamodt Prize in Classics in English 50 of the value of fifteen dollars in books offered annually by the Canada Gamma Chapter of Delta Delta Delta in honor of Mrs. Monica Jones Aamodt, its organizer on this campus. The prize is to be awarded to the student obtaining the highest mark in that course, provided that the standing obtained meets with the approval of the Faculty Council.

Commerce

The T. Eaton Company's Gold Medal in Commerce is awarded annually to the graduating student who receives the highest standing in the courses of the second and third years, providing the student's record is considered satisfactory by the School of Commerce.

The Hudson's Bay Company Gold Medal is awarded annually to the graduating student in the Bachelor of Commerce course obtaining the highest average standing in the prescribed courses in Political Economy, namely Political Economy 1, 10, 64, 66 and 73, provided that the student's record is considered satisfactory by the faculty of Arts and Science.

The T. Eaton Co., Ltd., Edmonton, offers two book prizes as follows:

A prize of books to the student securing the highest standing in the courses of the first year.

A prize of books to the student securing the highest standing in the courses of the second year.

In both instances above the award will be subject to the students' record being considered satisfactory by the School of Commerce.

Dentistry

The Alberta Dental Association offers a scholarship to the value of \$50.00, to be awarded to the student with the highest general standing for the work of the third year in Dentistry, to be given to the student only after he has registered in the next session of Dentistry at the University of Alberta. They also offer a prize of \$50.00 to the student with the highest general standing for the work of the fifth year in Dentistry, provided that the year average is not less than 75% in both cases.

In making these awards, consideration will be given, not only to scholastic attainments, but also to character, and interest in student activities.

Education

The Faculty of Education Alumni Gold Medal in Education is offered annually by the graduates in Education to the student who has shown highest general proficiency in the final year of the Bachelor of Education program.

The Board of Governors of the University offers a scholarship of the value of \$50.00 to be awarded on the basis of the work of the first year in Education, under the same regulations as that offered in the Faculty of Agriculture.

English

The Rutherford Memorial Gold Medal is offered in memory of the late Honorable Alexander Cameron Rutherford, and is open for competition to students in the graduating year, reading for honors in the Department of English.

**The Aikins Scholarship in English Language and Literature* is the gift of the late Sir James Aikins. It is open to students entering upon their final year who have pursued the study of English throughout the first two (or, if honor students, three) undergraduate years; provided that such students shall have obtained satisfactory standing in English Literature 4 and English Composition 4 or its equivalent; not less than 75% in English of the first year, and an average of not less than 75% in senior English courses. In no English course must a student fall below second class standing.

The selection of the scholar will be made by a committee appointed by the President; the committee to consider not only the academic standing of the candidate, but also evidence of intellectual grasp and of proficiency in expression, as displayed in such essays or other tests as the committee may impose.

**The Priscilla Hammond Memorial Scholarship in Honors English* is awarded to the student entering upon his or her final year in honors English who, in the judgment of the Department of English, shows the greatest ability and promise in the field of English scholarship or in creative work in English. The right is reserved to withhold the scholarship in any given year if there is no candidate satisfactory to the department. Application for this scholarship should be made to the Department of English not later than March 15.

The Samuel Richard Hosford Memorial Prize, of the value of \$15.00 in books, is awarded to the undergraduate student making the best record in English 53.

The Priscilla Hammond Memorial Prize in English 2, of the value of \$15.00 in books, is offered annually by Delta Gamma Fraternity, in honor of their first president. It is awarded to the undergraduate student making the best record in English 2, provided that the student secures a standing which is satisfactory to the faculty council.

French

Le Ministère des Affaires Étrangères Bronze Medal in French—A Bronze Medal in French is offered by the French Consul in Western Canada, to be awarded to the undergraduate student enrolled in a senior French course who takes the highest standing in a special examination covering: (a) Oral French; (b) Free Composition in French.

The Carnegie Corporation, Language Scholarships—Two language scholarships of the value of \$165.00 each are offered for each of the years 1943, 1944 and 1945

by the Carnegie Corporation to Alberta students who desire to attend the University of Western Ontario Summer School for French conducted at Trois Pistoles, Quebec.

These scholarships are offered with the double object of bringing together students of different provinces and different outlooks and also of giving those students an exceptional opportunity of acquiring a practical knowledge of the French language.

The scholarships are open to undergraduates, to High School teachers and to young university instructors in the province of Alberta. Application for the scholarship, addressed to the Registrar, University of Alberta, not later than March 1, should contain particulars of the candidate's age and place of birth, also a statement of his academic career and of his reasons for wishing to attend the school at Trois Pistoles.

A prize of books is offered by the French Consul for Western Canada, to be awarded to the undergraduate student making the best record in French 60, provided the student secures a standing satisfactory to the faculty council.

The Aristide Blais Prize in French: A prize of twenty-five dollars, the gift of Senator Blais, to be awarded annually to an undergraduate, fluent in the French Language, who obtains the highest first-class standing in *either* French 51 *or* French 107, two courses offered in alternate years. The prize may not be awarded to the same student more than once and in the event of a student qualifying for the prize a second time, it may be awarded by reversion to another student with first-class standing in French 51 *or* 107.

Geology

The Stutchbury Prize of the value of \$25.00 is offered annually by Howard Stutchbury, Esq., to the undergraduate student presenting the best paper in a given year to a meeting of the Mining and Geological Society of the University of Alberta. The paper must deal with problems in the field of geology and mining, or chemistry of metals. Originality of material, literary merit and presentation will be the bases of award. The prize will not necessarily be given unless the paper presented reaches a reasonable standard of excellence. The award will be made by a committee of three named by the President of the University.

Dowling Memorial Prize—A book prize consisting of a volume dealing with the stratigraphy of the plains of Alberta will be awarded to the undergraduate student in his final year, who, in the opinion of the Department of Geology, has made the most progress in the study of stratigraphical geology.

Greek

The Ahepa Scholarship in Greek: A scholarship of \$50.00 offered by the Anglo-Hellenic Association in Western Canada, to the student in Greek 2 or Greek 40 who secures the highest standing in a special examination in Sight Translations from English to Greek and from Greek to English, subject to the proviso that the scholarship be granted to the successful candidate only if he or she continues in a course in senior Greek in the year immediately subsequent to the year in which the scholarship is won. If there is no suitable candidate from Greek 2 or Greek 40, the Department of Classics may at their discretion award the scholarship to a student in other courses in Greek.

History

The John Henry Stanley Memorial Prize, of the value of \$25.00 in books is offered annually by Dr. George F. G. Stanley, B.A., in memory of his father, to be awarded annually to the student standing highest in Canadian History, provided this student is taking a full year's work and passes all other subjects.

The History Club Prize of books of the value of \$15.00 is offered by the History Club of the University of Alberta, to the student making the best record in History 2, provided such student receives first class standing on the year's work in history and passes in all other subjects.

The Gordon Stanley Fife Memorial Prize, of the value of \$25.00, is offered by Professor A. L. Burt in memory of his colleague, to be awarded to the graduating student who has taken the highest average mark in two or more senior history courses.

The A. L. Burt Prize of books of the value of \$10.00 is offered annually by the History Club in honor of its founder, to the student making the highest standing in History 57, providing that the student's general record is satisfactory to the faculty council.

Household Economics

The Prevey Gold Medal is offered by Warren W. Prevey, Esq., to the graduating student making the highest standing in the work of the last two years of the course leading to the degree of B.Sc. in Household Economics, provided such student's standing is deemed satisfactory by the School of Household Economics.

The Home Economics Club Scholarship of the value of \$50.00 is awarded annually to the student in Household Economics who takes the highest standing in the work as outlined for the second year, provided that the student passes all courses and obtains an average of not less than 75% on the work of the year. Further, the award is contingent upon the student's proceeding with the work of the third year and will be paid only after the student is in actual attendance in the third year of her course.

The Greta Shaw Simpson Memorial Scholarship of the value of \$25.00 is offered annually by Miss Maimie S. Simpson, in memory of her sister, formerly instructor in Bacteriology in this university. It is to be awarded annually to the student in Household Economics who takes the second highest standing in the work as outlined for the second year, provided that the student passes all courses and obtains an average of not less than 75% on the work of the year. Further, the award is contingent upon the student's proceeding with the work of the third year and will be paid only after the student is in actual attendance in the third year of her course.

The McLaren-Cook Memorial Prize in Household Economics, of the value of \$15.00 in books is offered by Miss Janet Cook and Associate Professor A. J. Cook in memory of their parents, Agnes McLaren and John Cook. The award will be made to the student who has (a) the best record in the subjects of Household Economics of the final year, provided a standing of not less than 80% is obtained in these subjects; and (b) satisfactory standing in the other subjects of that year.

The D. M. Duggan Memorial Prize of books is offered by Grace L. Duggan to the student making the highest standing in the work of the first year in the

B.Sc. course in Household Economics, provided that such student's record is satisfactory to the School of Household Economics.

The Maria Isabel O'Connor Prize to the value of \$15.00 is offered annually by the Honorable Mr. Justice O'Connor in honor of his mother to the student in second year Household Economics, who takes the highest standing in Household Economics 55, providing that the student has carried the full work of the second year and has a record satisfactory to the School of Household Economics.

The Phylis Osborne McGachie Bursary in Household Economics of the value of \$100 is available to a student in the second year of the B.Sc. course in Household Economics. The award will be made on the basis of academic record, which must not fall below second class, and of financial need. It will be paid only after the student is in actual attendance in the third year of her course. Applications will be received by the Registrar on or before April 1, 1943.

Law

The Chief Justice's Gold Medal is offered by the Honorable Horace Harvey, Chief Justice of Alberta, for highest standing in the work prescribed for the LL.B. degree, provided that the student obtains an average of not less than 75%.

The Judge Green Silver Medal in Law is offered by Mrs. L. J. M. Greene of Medicine Hat in memory of her husband, the late Judge Greene. It is awarded to the student standing second in the graduating year of Law.

The Board of Governors of the University offers a scholarship of the value of \$50.00 for competition among the students of the first year in the Faculty of Law, on the same basis as Agriculture.

The Carswell Prizes in the Faculty of Law are offered annually by the Carswell Company, Limited, Law Publishers, of Toronto, but are suspended for the duration of the war. These are to be awarded on the following terms:

- (a) Books of the value of \$20.00 to the student securing the highest average in the work of the first year;
- (b) Books of the value of \$20.00 to the student securing the highest average in the work of the second year;
- (c) Books to the value of \$20.00 to the student securing the highest average in the work of the third year.

The Raymond James Memorial Prize—A prize of the value of \$25.00 is offered annually by Mrs. E. L. FitzSimon, LL.B., 1926, in memory of her brother, to be awarded to the final year student in Law, who has obtained the highest mark for an essay appertaining to equity, the subject to be selected each year by the Dean of the Faculty. The subject of the essay for this prize for 1943-44 is: "Secret Trusts in Wills." Essays may be in the hands of the Registrar of the University not later than May 1, 1944. Essays should be typewritten. The copy of the essay winning the prize is to become the property of the University. The right to withhold the prize is reserved in the event of no sufficiently meritorious essay being submitted.

The National Trust Prize—A prize of books of the value of \$30.00 is offered by the National Trust Company to the student of the graduating class in Law who has made the best record in the examinations in Equity 1, Equity 2, Real Property 2,

Real Property 3 and Wills and Administration. A student is ineligible for this prize if his average on the examinations of the second and third years of his law course is less than 75%.

The B'nai B'rith Prize of \$50.00 offered annually for a period of five years, to be awarded to such student in the second year of Law as may be selected by the Faculty of Law.

Sydney Woods Memorial Prize in Constitutional Law—A prize of the value of \$25.00 has been provided by Messrs. Field, Hyndman and McLean, former partners of the late Sidney B. Woods, K.C. The prize is awarded annually to the student in the graduating class in Law who makes the highest mark of his class in the subject of Constitutional Law. The award is conditional upon the student's reaching a standard which is deemed satisfactory to the Faculty Council.

Mathematics

Robert Tegler Scholarships in Mathematics—The Robert Tegler Trust provides three scholarships of \$100.00 each, awarded on the bases of academic record and financial need. They are open to students who have completed satisfactorily a year's work at the University, and either are reading for Honors in Mathematics in the second year of the Faculty of Arts and Science or are taking two courses in Mathematics of the second year of the pass course together with one or more related courses approved by the Department of Mathematics.

Medicine

The Moshier Memorial Medal is offered by the Volunteer Overseas Medical Officers' Association of Edmonton, in memory of the late Lieutenant-Colonel H. H. Moshier, M.B., to be awarded for general proficiency in the Faculty of Medicine, upon completion of the courses offered at this University.

The Mewburn Gold Medal in Surgery is offered annually by the Medical Club of the University of Alberta to the graduating student in Medicine who has obtained the highest standing in the oral examinations in surgery in his fifth and sixth years, providing that the student shall have obtained at least 75% in the oral examination in surgery and shall have passed in all other subjects of the sixth year.

The Scholarships of the College of Physicians and Surgeons of the Province of Alberta are five in number of the value of \$50.00 each, and will be awarded as follows:

1. One to the student taking the highest average mark in the work of the first year.
2. One to the student taking the highest average mark in all the courses in anatomy of the first and second years.
3. One to the student taking the highest average mark in all required courses in physiology. The award will be made on completion of courses.
4. One to the student taking the highest average mark in surgery at the end of the final year.
5. One to the student taking the highest average mark in medicine at the end of the final year.

The Prize in the History of Medicine, of the value of \$10.00 in books is offered by Dr. H. C. Jamieson for an essay on some phase of the earlier development of anatomy or physiology. This prize is open to students enrolled in the third year of Medicine.

The Harrison Memorial Prize—A book prize is offered by the Harrison Medical Reporting Club in memory of Dr. John Darley Harrison, formerly Associate Professor of Gynaecology, to the graduating student obtaining the highest mark in Obstetrics and Gynaecology.

Mining

The Northern Alberta Branch of the Canadian Institute of Mining and Metallurgy offers a prize of \$15.00 for the best paper submitted during the current term on a mining subject, the decision to be made by a committee appointed by the President. This offer is contingent upon there being at least three papers submitted.

Nursing

The President's Gold Medal in Nursing is offered for general proficiency in the three years of the diploma course.

A prize of the value of \$10.00 in obstetrical nursing is offered in the final year of the diploma course in nursing.

The prize in intermediate year Nursing is offered by Dr. E. L. Pope to be awarded for general proficiency in the intermediate year of the diploma course.

The Senate and Board of Governors of the University offer book prizes as follows:

- (a) For general proficiency in senior year nursing.
- (b) For highest standing in examinations in senior year nursing.
- (c) For highest standing in the practical work of senior year nursing.

Pharmacy

The Pharmaceutical Association Medals are offered by the Alberta Pharmaceutical Association under the following terms:

- (a) A gold medal to the student making the highest average mark in all subjects of the final year of the licentiate course, provided that the mark obtained in any subject does not fall below 60% and that the average obtained in all subjects is not less than 75%.
- (b) A gold medal to the student making the highest average mark in all subjects of the final year of the degree course, provided that the mark in any subject does not fall below 60% and that the average obtained in all subjects is not less than 75%.

Pharmaceutical Association Scholarships are offered by the Alberta Pharmaceutical Association:

1. A scholarship of \$40.00 to the student making the highest average mark in all subjects of the first year of the licentiate course, provided that the mark obtained in any subject does not fall below 60%.
2. A scholarship of \$40.00 to the student making the highest average mark in all subjects of the second year of the degree course, provided that the mark obtained in any subject does not fall below 60%.

Philosophy

The Gold Medal in Philosophy offered by Professor J. M. MacEachran is to be awarded to the honors student in the Department of Philosophy and Psychology graduating with the highest standing in his honors work. The medal is to be awarded only if first class standing is attained.

Philosophy and Education

The H. M. Tory Bursary valued at approximately \$100 is offered by the University of Alberta Alumni Association at stated intervals. It will next be available in 1945. The bursary is awarded upon the joint recommendation of the Departments of Philosophy and Education to the graduating or graduate student who in the judgment of these departments is best qualified to prosecute research in the field of mental hygiene, provided that the student's record is satisfactory to the Faculty of Arts and Science. It will be paid only when the student has registered for a normal year's program of intramural graduate study at the University of Alberta or at another approved graduate school. The right is reserved to withhold this bursary in any given year, if in the opinion of the departments concerned there is no candidate of sufficient merit available.

Political Economy

The Duncan Alexander McGibbon Gold Medal in Political Economy offered by Dr. Duncan A. McGibbon is to be awarded to the student registered in an honors course in Political Economy who receives highest average standing in four courses in Political Economy, one of which must be a course in the general principles of economics, and provided that the student's record is considered satisfactory by the Faculty of Arts and Science.

A prize of the value of \$10.00 in books is offered by the Men's Economics Club to the student taking the highest standing in Political Economy 1, providing such student's academic record is satisfactory to the Faculty Council.

BURSARIES, SCHOLARSHIPS AND FELLOWSHIPS

Not restricted to any Faculty or Department

University of Alberta Honor Scholarships

The Board of Governors of the University offer annually a scholarship to the value of \$50:

- (1) To each student from Alberta high schools entering a degree course in the University with an average standing in the examination units of matriculation of at least 85%.
- (2) To each undergraduate student in a degree course who, in the work of the preceding year at the University of Alberta, obtained an average standing of at least 85%. This includes students in the graduating year who return the following session for a full year's graduate work taken intramurally.

The scholarship is payable when the student is in actual attendance at the University and may be applied towards defraying tuition fees.

The Robert Tegler Special Scholarships

The Robert Tegler Trust has provided two special scholarships for handicapped students, tenable in any faculty to which the students can be admitted, and available to new students or continuing undergraduates. While due weight will be given to the academic record of candidates, special consideration will be given to their background, financial need, nature of handicap, personal qualities, and other relevant points.

The scholarships may be awarded to the same students a second time, or even throughout the whole undergraduate course if, in the judgment of the committee, progress and other circumstances are such as fully to warrant it.

The value of each scholarship will be equal to the annual fees in the faculty concerned, plus a subsistence allowance of \$300 for the academic year.

Applications, giving full particulars, should reach the Registrar's office by March 15.

MATRICULATION

The University Women's Club of Edmonton Scholarship

The University Women's Club Scholarship of \$100.00 is open to women students from Alberta high schools only, on the results of the June Grade XII examinations. It is awarded providing that a mark of 75% is obtained in each subject. The scholarship is payable to the student in attendance at the University during the session following the award, and will be applied towards defraying tuition fees.

The Daughters of the Empire Matriculation Bursary

The Provincial Chapter of Alberta, Imperial Order Daughters of the Empire, has provided six bursaries for matriculating students, known as the Coronation Bursaries, of the value of \$400.00 each. These are tenable at the University of Alberta and are each made in three yearly payments. The conditions of the scholarship are as follows: The candidate must be the child of a man or woman who served overseas with the British forces during the Great War, must have resided in the Province of Alberta for at least three years prior to application and must not be more than nineteen years of age as at September 1st of the year the award is made. The provincial educational secretary of the Imperial Order Daughters of the Empire will notify the high schools in January of each year, of the impending award, all applications to be in her possession by March 1. Further information and application blanks may be obtained from the secretary, Mrs. C. T. Woodside, 116 Roxboro Rd., Calgary.

The Robert Tegler Matriculation Scholarships

The Robert Tegler Trust has provided three matriculation scholarships known as the Robert Tegler Matriculation Scholarships which are awarded annually to three matriculating students from the high schools in the city of Edmonton, on the following terms:

The scholarships will be awarded to the three students having the highest average standing in the examinations covering the subjects for complete senior matriculation (Grade XII) as prescribed in the course of studies. To be eligible for one of these scholarships a student must have completed the grades from ten

to twelve inclusive, in not more than four years and secure an average mark of at least 80% in all subjects considered as the bases of award.

The scholarships provide for three years' fees in any faculty at the University of Alberta. Any student holding one of these scholarships must make at least a second class general standing in order to be eligible for the scholarship during the succeeding year.

The University of Alberta Matriculation Scholarships

The University of Alberta has provided three matriculation scholarships which are awarded annually to three matriculating students from the high schools in Alberta other than those in the city of Edmonton on the following terms:

The scholarships will be awarded to the three students having the highest average standing in the examinations covering the subjects for complete senior matriculation (Grade XII) as prescribed in the course of studies. To be eligible for one of these scholarships a student must have completed the grades from ten to twelve inclusive, in not more than four years and secure an average mark of at least 80% in all subjects considered as the bases of award.

The scholarships provide for three years' fees in any faculty at the University of Alberta. Any student holding one of these scholarships must make at least a second class general standing in order to be eligible for the scholarship during the succeeding year.

The University Women's Club Bursary of \$150.00 tenable at the University of Alberta is open to women students from Alberta High Schools only. It is awarded on the basis of academic standing at the June Grade XII examination, provided the student has an average of at least 75% in all subjects considered as the basis of award, and the need for financial assistance. To be eligible for this Bursary a student must have completed the grades from X to XII inclusive in not more than four years.

Applications should be made to the Registrar, University of Alberta, on or before August 15th. The Bursary is payable to the student in attendance at the University during the session following the award and will be applied towards defraying tuition fees.

UNDERGRADUATE

The McLean Bursaries

Through the generosity of Mr. J. S. McLean of Toronto, eight bursaries to the value of \$125.00 each are available to students who have previously been in attendance at University and are continuing. They are awarded on the bases of academic record and financial need and are open to students from farm homes and are tenable in any faculty of the University.

For further particulars apply to the Registrar's Office. Application forms may be obtained at the Registrar's Office and should be filled in and returned by March 15th, 1944.

GRADUATE**ROBERT TEGLER RESEARCH SCHOLARSHIP**

One research scholarship of the value of \$600.00 for work to be carried on at the University of Alberta is offered by the Robert Tegler Trust. This scholarship is open to graduates of the University of Alberta. The financial need of the candidate will be considered together with other qualifications.

Any graduate or graduating student who may be interested should apply to the Registrar before March 15th and attach supporting statements from instructors with whom the applicant has worked previously. Definite details should be given as to the field of study in which the candidate desires to work.

UNIVERSITY OF ALBERTA RESEARCH SCHOLARSHIPS

Two research scholarships of the value of \$600.00 each for work to be carried on at the University of Alberta are offered by the Board of Governors of the University for the session 1943-44. These scholarships are open to graduates of any Canadian university. They are not necessarily offered annually and intimation will be given each year as they become available.

Any graduate or graduating student who may be interested should apply to the Registrar before March 15th and attach a record of undergraduate and graduate work as well as supporting statements from instructors with whom the applicant has worked previously. Definite details should be given as to the field of study in which the candidate desires to work.

**The Federation of University Women in Canada
Travelling Scholarship**

The Travelling Scholarship of the Federation of University Women in Canada, of the value of \$1,250, available for study or research work, is open to any woman holding a degree from a Canadian university. In general, preference will be given to those candidates who have completed at least one or two years of graduate study and have a definite research in preparation. The award is based on evidence of character and ability of the candidate and promise of success in the subject to which she is devoting herself.

Application is to be made by letter to the convener of the Scholarship Committee, Miss Jean E. Murray, University of Saskatchewan, Saskatoon, Saskatchewan, not later than February 1st.

The letter of application should contain an account of the applicant's educational training and a statement in full of the plan of study or research she intends to pursue. This information should be accompanied by:

1. A written statement from the president of the college or university awarding the degrees held by the applicant to the effect that her application as a suitable candidate is approved.

2. Testimonials as to her health, character, ability and scholarship. All testimonials and references should be in writing. The committee will assume no responsibility for making enquiry beyond the papers submitted.

3. Theses, paper or reports of investigation published or unpublished.

All papers submitted by the applicant will be returned if postage is sent for that purpose. Confidential letters will be kept.

The choice of the university at which the successful candidate shall pursue her study or research work is left to the committee of selection in consultation with the candidate.

The scholarship is payable in two equal instalments on July 1st and January 1st by the treasurer of the Federation, provided the successful applicant sends her address for those dates.

At the end of her tenure, the candidate shall send a report of her work, together with a statement of its worth from the professor or other authority conversant with her research to the convener of the Scholarship Committee.

The Canadian Federation of University Women Junior Scholarship

The Junior Scholarship of the Federation of University Women in Canada of the value of \$700, for 1943-44, is open to any woman holding a degree from a Canadian University who is not more than twenty-five years of age on February 1, 1944. The award will be based on evidence of character, intellectual achievement and promise. The place and plan of study must be approved by the Scholarship Committee. Preference will be given to students who have studied in only one university and who desire to continue their studies in another.

For further particulars apply to the Registrar's Office.

Application is to be made by letter to the convener of the Scholarship Committee, Miss Jean E. Murray, University of Saskatchewan, Saskatoon, Saskatchewan, before February 1st.

Daughters of the Empire Post-Graduate Overseas Scholarship

The scholarship, founded by the Imperial Order, Daughters of the Empire, as part of the war memorial of the Order, is of the value of \$1,400.00 tenable for one year in any British university, the subjects of study being specified as British and Imperial History, the economics and governments of the Empire and Dominion, or any subject vital to the interest of the Empire.

Application is to be made to Mrs. T. W. Cogland, 9832 113th St., Edmonton, Alberta, not later than October 15th.

The selection of a candidate will take place during the month of November. The candidate selected must be prepared to begin his or her course in Great Britain in the following autumn.

Candidates may be men or women. They must be British born, naturalized allies, or naturalized neutrals, with at least five years' residence in Canada, and unmarried. Except in the case of a returned soldier, sailor, or airman, they must have passed their 19th but not their 27th birthday in October of the year during which they begin their course. Each candidate must hold a degree from a recognized university or degree-granting college in Canada, and must have done or be doing post-graduate work. A candidate shall apply in the province in which the university from which he or she graduates is situated, irrespective of his or her place of residence in Canada. In provinces where there is no university, the War Memorial Committee in that province may grant the scholarship to a man or woman from that province who has graduated from any Canadian university or college, and has done or is doing post-graduate work. Candidates from a province having no university

may apply only in that province, not in the province where they are attending college or have taken a degree.

In choosing the scholars, the Committee of Selection will give consideration not only to literary and academic attainments, but also to personal character and physical fitness. If possible, personal interviews with the candidates will be arranged. Other conditions being equal, preference will be given to a returned soldier, his sister, son or daughter.

The following students have obtained this Scholarship:

1922, Bertha Lawrence; 1924, John Wesley McClung; 1926, James Brown; 1927, Marjorie Sherlock; 1928, Marian M. Gimby; 1929, Matthew Henry Halton; 1930, Margaret M. Roseborough; 1931, Harriet Maud Riley; 1932, Kenneth F. Argue; 1933, Cyril Nisbet Tingle; 1934, Helen Laura Sorenson; 1935, Doris Elizabeth Carscallen; 1936, Patricia Evelyn Parker; 1937, William Harold Epstein; 1938, Phyllis May Brewster; 1939, William Gray Scott; 1940, William Gray Scott; 1941, 1942, 1943, not awarded.

The 1851 Exhibition Science Research Scholarship

(Withdrawn for the duration of the war)

Three of these scholarships are granted each year in Canada and may be applied for by students of eight Canadian universities of which this institution is one. They are of the value of £250 per annum for two, or in rare instances, three years, together with certain possible allowances for fees and travelling expenses. The object of the Scholarship is "to enable students to continue the prosecution of science with a view to aiding in its advance or in its application to the industries of the country." It is open to students of not less than three years' standing who have shown evidence of capacity for original research and is tenable at any university or other institution approved by the Committee.

Students intending to apply for this scholarship should communicate with the Registrar before February 15th.

In 1923 this scholarship was awarded to Julius Ferdinand Lehmann; in 1925 to Charles Leonard Huskins; in 1928 to John Ansel Anderson; in 1929 to Daniel Orr Sproule; in 1935 to Robert Charles Rose.

The Rhodes Scholarship

A Rhodes Scholarship is tenable at the University of Oxford and may be held for three years. Since, however, the majority of Rhodes Scholars obtain standing which enables them to take a degree in two years, appointments are made for two years in the first instance, and a Rhodes Scholar who may wish to remain for a third year will be expected to present a definite plan of study for that period satisfactory to his College and to the Rhodes Trustees.

Rhodes Scholars may be allowed, if the conditions are approved by their own College and by the Oxford Secretary to the Rhodes Trustees, either to postpone their third year, returning to Oxford for it after a period of work in their own countries, or to spend their third year in post-graduate work in any university of Great Britain, and in special cases at any university on the continent of Europe, the overseas Dominion, or in the United States, but not in the country of their origin.

The stipend of a Rhodes Scholarship is fixed at £400 per year. At most colleges, and for most men, this sum is not sufficient to meet a Rhodes Scholar's necessary expenses for term-time and vacations, and scholars who can afford to supplement it by say £50 per year from their own resources will find it advantageous to do so.

CONDITIONS OF ELIGIBILITY: A candidate to be eligible must:

1. Be a British subject, with at least five years' domicile in Canada and unmarried. He must have passed his nineteenth, but not his twenty-fifth birthday on October 1st of the year *for* which he is elected.
2. Have reached such a stage in his course at one of the universities of Canada that he will have completed at least two years at the university in question by October 1st of the year *for* which he is elected.

Candidates may apply either for the Province in which they have their ordinary private domicile, home or residence, or for any Province in which they have received at least two years of their college education before applying.

In that section of the will in which he defined the general type of scholar he desired, Mr. Rhodes wrote as follows:

"My desire being that the students who shall be elected to the Scholarships shall not be merely bookworms, I direct that in the election of a student to a Scholarship regard shall be had to:

- (1) his literary and scholastic attainments,
- (2) his fondness for and success in manly outdoor sports such as cricket, football and the like,
- (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness and fellowship, and
- (4) his exhibition during school days of moral force of character and of instincts to lead and to take an interest in his schoolmates, for those latter attributes will be likely in after life to guide him to esteem the performance of public duty his highest aim."

Full particulars can be obtained from Ronald Martland, Esq., Royal Bank Chambers, Edmonton, Alberta, Secretary of the Selection Committee for the province of Alberta.

Each candidate for a scholarship is required to make application to the Secretary of the Committee of Selection of the province in which he wishes to compete not later than November 10th.

The Rhodes Scholars hitherto elected from this University are as follows::

1913, Walter Farrel Dyde; 1915, Henry Grattan Nolan; 1917, Henry Alexander Dyde; 1918, Alan Burnside Harvey; 1919, Daniel Roland Michener; 1920, Walker Dunham; 1921, George Victor Ferguson; 1922, Stuart Perry Hamilton; 1923, Robert Lincoln Lamb; 1924, John McIntyre Cassels; 1925, Edward Hunter Gowan; 1926, Clarence Sutherland Campbell; 1928, Ronald Martland; 1929, George Francis Gillman Stanley; 1930, Hugh Whitney Morrison; 1931, Kenneth Wilfred Conibear; 1932, Edward Alexander McCourt; 1933, Stanley Rands; 1934, Robert Lloyd Doull Fenerty; 1935, Donald Robert Wilson; 1936, Mark McClung; 1937, John Charles Garrett; 1938, Ralph Edgar Collins; 1939, Douglas Richard Crosby; 1940, Neil Victor German; 1941, 1942, 1943, not awarded.

Royal Society of Canada Fellowships

Ten fellowships, each of \$1,500, and open on equal terms to men and women, are offered annually by the Royal Society of Canada. They are tenable at institutions of learning or research, save in exceptional circumstances, outside of Canada. They are available for advanced research in Literature, History, Anthropology, Sociology, Political Economy, or allied subjects, in French or English; and in Mathematics, Chemistry, Physics, Geology, Biology, or subjects associated with any of these sciences.

An applicant for a Fellowship should be a graduate of a Canadian university or college, or should have received training in a Canadian institution possessing adequate facilities in his particular subject, and, except in special cases, should have the Masters' degree or its equivalent or, preferably, have completed one or more years' work beyond that degree.

Applications, addressed to "The Secretary, Royal Society of Canada Fellowships Board, Ottawa, Canada," should contain particulars of the candidate's age and place of birth, a full statement of his academic career, with copies of original papers and any other evidence of his ability or originality in his chosen field; also an indication of the particular work he proposes to undertake, at what institution, and under whose direction; and should be supported by recommendations from the head of the department of the institution in which the candidate has studied, and from the instructors under whom he has chiefly worked. All these papers are to be in duplicate, and should be sent in not later than February 1.

Application forms may be obtained from Mr. Lawrence J. Burpee, Secretary Fellowships Board, The Royal Society of Canada, Ottawa, Ont.

THE NATIONAL FEDERATION OF CANADIAN UNIVERSITY STUDENTS EXCHANGE SCHOLARSHIP

By an arrangement with certain universities of Canada, undergraduate scholars may apply for a year's exchange at another Canadian university. For this purpose Canada is divided into regions as follows: British Columbia, Prairie Provinces, Ontario, Quebec, and the Maritime Provinces. Exchange must be arranged for a region other than the one in which the student is attending. To be eligible, the candidates must be *bona fide* students who have completed the equivalent of one year of university work, following complete senior matriculation, and must undertake to return to the University of Alberta at the expiration of the scholarship year. When accepted the successful candidates will be permitted to take the following year's work at the "exchange" university without paying tuition fees or students' union fees.

Application must be complete by March 1st. For further information apply to the president of the students' union, or to the N.F.C.U.S. representative or to the Registrar.

UNIVERSITY REGULATIONS

FEES

Make all cheques payable "at par" to "University of Alberta."

The University reserves to itself the right to change these fees from year to year without notice.

Registration is incomplete until fees have been paid, and is subject to cancellation, unless payment has been made by final date according to regulations as stated in the academic calendar on page 3.

The following special fees are applicable to all faculties and will be assessed in particular cases as they apply:

For viséing Certificates	\$ 2.00
For Transcript of Record	3.00
For Supplemental Examinations, each subject	5.00
For Special Supplemental Examinations, first subject	10.00
Each additional subject	5.00
For D.Sc. Degree	100.00
For ad eundem degrees	10.00
For final examinations, for any degree or diploma, including parchment	10.00
For Summer Reading Courses in Languages	5.00

Every student is required to deposit \$5.00 Caution Money to cover damages done to furniture, apparatus, books, etc. This amount, less any necessary deductions, will be returned at the end of the session. Breakages exceeding this amount must be paid for before the student is permitted to take any examinations.

The statement of fees for each faculty will be found in its respective section of the calendar.

REGISTRATION

There are certain forms to be filled out by applicants for enrolment in the University. A new student should, early in the summer, secure from the Registrar of the University, an application form which he should fill out and return as soon as possible. Moreover, the student should himself write to the Registrar of the Department of Education, of the province in which he obtained his preliminary education, asking him to send directly to the Registrar of the University a transcript of the complete high school record of the applicant. This should be done to avoid delays embarrassing both to the student and to the University.

Applicants for admission to the School of Nursing, the Faculty of Applied Science, and the School of Household Economics should note that the last day for receiving such applications is August 31st.

The university calendar may be consulted in the library or obtained from the book store and students should become familiar with its contents before presenting themselves for registration.

All students registering in the first year must complete their registration in conference with advisers at the University on September 21st.

All other students in the Faculty of Arts and Science, including the schools of Commerce, Household Economics, the B.Sc. in Pharmacy, and students in the Faculty of Education, must complete their registration in person at the University on September 22nd.

All other students in the Faculties of Medicine (including the School of Dentistry, the B.Sc. in Pharmacy, and the B.Sc. in Nursing), Agriculture, Applied Science, and Law, must complete their registration in person at the University on September 23rd.

All lectures begin on September 24th. Students having exceptional difficulty in this connection may communicate with the Registrar.

Students are required to register for courses in which they are deficient before registering for other courses. The faculty councils reserve the right to adjust courses to meet the requirements of time-tables of lectures and examinations. The program of work for which a student seeks registration is in every case subject to the approval of the Registrar and the faculty concerned.

N.B.—A student is responsible for the completeness and accuracy of his registration. He is also responsible for any adjustment of registration made necessary by the results of supplemental examinations. Particular care should be exercised with regard to pre-requisite courses. Registration in courses which directly conflict on the time-table will only be allowed when the permission of the faculty council concerned has been secured.

ATTENDANCE AND LATENESS

(a) Students are required to complete their registration, in person, by the date specified in the academic calendar (page 3).

(b) Registration after the end of the registration period will be permitted only upon the following conditions:

Illness, accident, family affliction, employment under contract, or other exceptional circumstances, provided that any application for late admission shall be accompanied by a confirmatory certificate, *and the payment of a special registration fee of \$3.00.*

(c) Regular attendance is expected of students in all cases. In each course designated with an asterisk and in each laboratory course they will be excluded from the final examination if their unexcused absences exceed ten periods where three periods a week occur throughout the session, six periods where two periods a week occur throughout the session, four periods where one period a week occurs throughout the session.

(d) Absences are counted from the first day of the session.

(e) Excuses for absence may be presented in cases of (i) illness or physical disability, and (ii) in certain other cases:

(1) Students desiring to present excuses for absence on the ground of sickness or disability must, within one week of the date when that absence occurred or when the period of absence terminated, obtain absence cards at the office

of the Registrar. These cards must be returned to the office of the Registrar, with physician's signature, within one week of the date stamped on the card. The Registrar will promptly forward to the Director of Medical Services the names of such students and the dates for which they claim exemption, and upon the endorsement of the Director of Medical Services, such excuses will be filed to constitute part of the year's attendance record. Absence cards are required for each period of absence, even in the case of students suffering from chronic or recurrent disabilities. No other form of excuse in regard to sickness or physical disability will be accepted.

- (2) Students must present absence cards in every case where excuse for absence is sought on account of:
- (i) transfer of attendance record from one course to another, or
 - (ii) lectures missed because of conflicts with examinations, or
 - (iii) absence with athletic or debating teams or other organizations representing the university (where permission to be absent has been secured in the regular way).

All such absence cards must be returned properly certified within fourteen days of the termination of each period for which excuse for absence is sought.

Any other excuse must be made in person to the Registrar, whose judgment upon its validity shall be final, subject to an appeal to the General Faculty Council.

(f) Students who are late for any lecture or laboratory period will be marked absent unless at the end of the period in question they account satisfactorily to the instructor for their lateness. The decision of the instructor shall be final, subject only to an appeal to the Committee on Examinations.

(g) Students desiring *leave of absence* in any given course must communicate their desire to the Registrar. When such leave of absence has been granted, the student is exempted from the operation of the attendance rule above.

SESSIONAL EXAMINATIONS

(a) *First year courses*: In as many first year courses as possible a definite mark for each student will be reported to the Registrar's office before the 12th of November. This mark may be based upon a test or tests or essays. In each first year course a one-hour term examination is held during the week preceding the Christmas vacation. Another term examination may be held during the week commencing on the third Monday in February.

(b) *Senior courses*: In senior courses one-hour term examinations may be held during the week preceding the Christmas vacation and the week commencing on the third Monday in February.

(c) *Distribution of credits*: In each course credit of not less than 30% and not more than 50% will be assigned to term work. The remaining credit in each course will be assigned to the final examination.

(d) *Final examinations*: In each course a final examination is held. In courses completed before Christmas final examinations may be held either during the week preceding the Christmas vacation, or at the end of the session, at the discretion of the departments concerned. All other final examinations are held at the end of the session.

(e) *Absence from term examinations*: When a student is absent from a term examination the mark for that examination is zero. However, in case of illness a student may be excused from writing a term examination. In applying for exemption a student must present an absence card signed by the attending physician in accordance with the regulation on page 53. When exemption is granted the percentage allotted to the examination missed is added to the percentage allotted to the final examination.

Any student who is ill or in whose family there is serious domestic affliction is advised not to sit for a final or supplemental examination. In the case of a student writing final or supplemental examinations which are interfered with by illness or domestic affliction, a medical certificate or statement should be presented, or proper representations made within the 48 hours next following the examination period or periods affected. Consideration will not be given to such a case unless this requirement is met.

(f) *Aegrotat standing*: Aegrotat standing may be granted by the faculty council concerned to a student registered in either of the last two years in any course, unless it be in the final year for the first degree in a combined course.

Any student wishing to take advantage of this privilege should apply without delay to the Dean of the faculty concerned. Any other student absent from a final examination because of illness may apply for permission to write the regular supplemental examination (see paragraph (e), page 53).

(g) *Intercollegiate games or conferences*: When intercollegiate games, conferences, or other officially recognized events involving absence of students from the University, fall within the term examination periods in December or February, members and officers of teams or official delegates to such conferences shall notify the Registrar in writing at least two weeks before the beginning of the examination period, in order that a re-adjustment of the time-table may be considered.

(h) *Publication of standing*: In the publication of standing in the various courses, students are grouped by classes, the first class comprising those who have obtained 80% and over, the second class those who have obtained marks from 65% to 79%, and the third class those who have obtained marks from 50% to 64%. The pass mark is 50%. Second class standing must be obtained in four of the required senior courses in the Faculty of Arts and Science. This same regulation applies for the first degree in the combined course of Arts and Applied Science; in other combined courses second class standing in two senior Arts subjects is required. In the E.Com. and the B.Sc. in H.Ec. courses, each of the following combinations is counted as a course in the application of these regulations: Acc'g 55 and Pol. Ec. 73, Hygiene 51 and H.Ec. 57, and H.Ec. 56, 58 and 59. Students in the Faculties of Law and Medicine are required to obtain an average of 60% in the work of each year.

In Faculty of Education second class standing is required in four courses, one of these being Education 54 or Education 56 and the other three senior year courses.

In those courses in Dentistry in which a separate mark for practical work is given, such marks for practical work shall be not less than 65% in each course and the average for all practical marks shall not be less than 75%.

(i) *Statement of Record*: Statements of record are sent only in case of failure in one or more subjects, and are mailed to the home address of the student as specified on his registration form.

(j) *Appeals*: Final examination papers may be re-read on an appeal being made to the Registrar within thirty days after the publication of the results, accompanied by a fee of \$5 for each paper; the fee will be returned if the appeal is sustained.

(k) *Final Examination Fee*: Each student in the graduating year must deposit a fee of \$10.00 for his final examination. If he fails to graduate this fee will be refunded. If he is successful but is unable to attend Convocation an extra fee of \$5.00 is assessed in order that the degree may be conferred "in absentia." Application to obtain the degree "in absentia," accompanied by the fee, must be received at the office of the Registrar at least three days before Convocation, otherwise the degree will not be conferred. Graduands are expected to attend Convocation.

SUPPLEMENTAL EXAMINATIONS

(a) Supplemental examinations are conducted by the University in September of each year. A student who has failed in any course in the preceding session and whose attendance record is satisfactory, may apply to the Registrar, not later than August 14th, for permission to take a supplemental examination. Under no circumstances will any student who has written final examinations be permitted to sit for a supplemental examination unless he has attained an average of at least 50% on the year's work including the failed subject or subjects. In the faculties of Law and Medicine the average on the year's work must be at least 60%. Any student neglecting to take or failing to pass a supplemental examination is required to repeat the course or to take an equivalent course.

(b) *Pass mark*: The pass mark for supplemental examinations is 50% in all courses. Except in certain practical courses in Dentistry as stated in (h) under sessional examinations, term work will be taken into account.

(c) *Illness*: A student who has missed a final examination because of illness may apply (providing that the application is supported by a satisfactory medical certificate) for a supplemental examination at the regular time. A student in the faculty of Medicine who cannot take a Christmas final examination because of illness will be granted a supplemental examination at the end of the session; application for such an examination must be made not later than March 15.

(d) *Graduating students*: Students in the Faculty of Arts and Science and associated schools, i.e., Commerce and Household Economics, in Pharmacy (degree course), and in the Faculty of Education, where second class standing is required in a specified number of subjects (see page 55) should note the following: Any student who at the normal time of graduation lacks the requisite number of second class standings may apply for a supplemental examination for the purpose of raising a previous mark in any subject of senior grade previously passed other than one in which pass standing was secured by a supplemental examination. Only one such supplemental examination may be granted in any subject. A member of the graduating class, who, having exhausted all the regular supplemental examination privileges, subsequent to the degree examinations, has still a failure in one course only, may, with the permission of the faculty council concerned, register in and repeat that course extramurally, unless in the opinion of the department concerned, a second attendance is necessary. A student who is absent on account of illness from, or who fails in, a Christmas final examination may be allowed a supplemental examination at the end

of the session; application for such an examination must be made not later than March 15.

Students failing to pass final examinations to qualify for their degrees are warned that the University does not guarantee that supplementals will be available for a subsequent indefinite period. In no case will an application for such supplemental examination be considered after three years have elapsed from the time the examination was failed.

(e) *Special supplemental examinations:* Special supplemental examinations may be written on October 16 or during the regular examination periods in March and April. Applications for such examinations must be in the hands of the Registrar by Oct. 1, March 1, or March 22, depending on the period chosen.

These examinations are granted only to students who are actually in attendance at the University who are prevented by illness, domestic affliction or other extreme circumstances from writing at the regular time.

(f) *Fees:* A fee of \$5.00 is charged for each supplemental examination. In the case of final examinations missed on account of illness the fee is \$5.00 for one or more subjects, provided that the application is accompanied by a satisfactory medical certificate. Applications received after August 15 must be accompanied by an additional fee of \$5.00 and may not necessarily be accepted. For special supplemental examinations a fee of \$10.00 is charged for the first subject and \$5.00 for each additional subject written at the same time. An additional fee of \$2.00 per subject is charged for writing supplemental examinations in centres other than Edmonton and Calgary. This fee is not refundable.

Whenever, for any reason, an application for a supplemental examination is refused, the fee is refunded.

PROFESSIONAL EXAMINATIONS

Either by statutory provision or by agreement the examinations for the right to secure registration with the following professional societies in the Province of Alberta are under the control of the University:

- The Alberta Association of Architects.
- The Alberta Land Surveyors' Association.
- The Alberta Dental Association.
- The College of Physicians and Surgeons of Alberta.
- The Alberta Pharmaceutical Association.
- The Institute of Chartered Accountants of Alberta.
- The Association of Registered Nurses of Alberta.
- The Association of Professional Engineers of Alberta.
- The Veterinary Association of Alberta.
- The Alberta Optometric Association.

Information with respect to these examinations may be obtained on application to the Registrar.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF CANADA

Students of this University are permitted to take the primary examination for the Fellowship of the Royal College of Physicians and Royal College of Surgeons

at the completion of their fourth year, in the Faculty of Medicine. The subjects for examination are: (1) Anatomy, including Histology and Embryology, (2) Physiology, including Biochemistry. Details as to time and scope of examination, fees, etc., will be given on application to the Registrar of the University.

DISCIPLINE

The Provost of the University exercises general supervision over the conduct and welfare of the students, especially with regard to the students in residence.

The use of, bringing or having of liquor on university premises including residences is strictly prohibited.

In the case of dishonesty or any serious indiscipline in the class room, the instructor has the authority of suspension from the class room. Further action is to be taken by a committee consisting of the Provost, the department concerned, and the dean of the faculty concerned.

By a resolution of the Senate, a Committee on Student Affairs has been constituted as follows: the President of the University, the Chancellor, the Chairman of the Board of Governors, the Deans, the Provost, the Chairman of the Freshman Committee, the Adviser to Women Students, two elected representatives of the Senate, the President, Secretary, and Treasurer of the Students' Union, the President of the Literary Association, the President of the Men's Athletic Board, the President of the Women's Athletic Association, the President of the Wauneita Society, the Chairman of the Constitutional Enforcement Committee,* the chairman of the Women's Disciplinary Committee,* the Editor-in-Chief of The Gateway, four elected representatives of the Students' Council.

The duties of this committee are as from time to time laid down by the Senate.

The Students' Union and the Council thereof exercise such powers of discipline and control over the conduct of students as is contained in the Constitution of the Students' Union and in any acts of the Senate passed in relation thereto.

Jurisdiction over the conduct of students in respect of all matters arising or occurring in the buildings and grounds of the University including residences and disciplinary jurisdiction in relation to students generally is vested in the Deans' Council and such committees of students including the Students' Union and the House Committee as have been formed for this purpose.

All interference on the part of any student with the personal liberty of another or any conduct on the part of any student subjecting another student to any indignity or personal violence is forbidden. No initiation ceremony involving physical violence, hazing, personal indignity, interference with personal liberty or destruction of property may be held within the buildings or on the grounds of the University, such student activities being expressly forbidden under penalty of suspension or expulsion.

*Until the residences are reoccupied, when the Chairman of the corresponding House Committees will resume these positions on this Committee.

The university authorities will not be responsible for any accident or illness of any kind occasioned to any student while engaged in or being subjected to any such activities.

SCHOLASTIC STANDING

The following disciplinary ruling with regard to athletics, submitted by the Faculty of Arts and Science and the Students' Union, was adopted by the Senate at its meeting of March 31st, 1911:

"Hereafter no persons except *bona fide* students who are in attendance at the University, or at one of the group of organized affiliated colleges carrying full work and whose scholastic record is certified as satisfactory by the Faculty Council of the University or by the respective colleges in which they are registered, shall be permitted to play on or be officers of any athletic team representing the University of Alberta."

Satisfactory scholastic standing shall be understood, in general, to mean passing on three-fifths of a full year's course of lectures of university grade.

The General Faculty Council has entrusted to the Committee on Scholastic Standing the administration of these regulations which have been enlarged to include the following activities:

1. *Athletics*: All competitions with outside organizations whether conducted within or outside of the University.
2. *Dramatic Performances*: The annual play of the Dramatic Society.
3. *Debates*: All debates with outside organizations, whether conducted within or outside the University.
4. *Other Activities*: Such other activities of general interest as may be submitted to the General Faculty Council for its approval from time to time.

By *bona fide students* shall be understood.

- (a) Students who are doing full undergraduate work in the University.
- (b) Graduate students in attendance following any full course of studies leading to a degree.
- (c) Students in affiliated colleges carrying a full year's work leading to a diploma or certificate and taking two full courses of university grade in the University.

THE FRESHMAN COMMITTEE

First year students of all faculties except Law and Medicine (M.D., D.D.S.) are under the jurisdiction of the Committee on Freshmen.

PROBATION

Any student whose academic record (either matriculation or university) is weak may be placed on probation until the record shows satisfactory improvement. During such period of probation the student is subject to special regulations governing participation in extra-curricular activities. Detailed information is given each student at the beginning of the probation period.

WITHDRAWAL OF STUDENTS

The General Faculty Council may refuse permission to a student to enter any year of any course, if, in the opinion of the Council, such student shows a lack of general educational attainment. Further, a student whose record in the class room, in tests, or in final examinations is unsatisfactory, may at any time be required to withdraw from the University. Any student who has twice been required to withdraw may not register again in the University.

LIVING ACCOMMODATION

As the University Residences have been taken over by the Department of National Defence as quarters for the R.C.A.F., accommodation in these buildings is no longer available to students. Accommodation for a limited number will be available in St. Joseph's College and St. Stephen's College. Enquiries should be addressed to Brother Ansbert, St. Joseph's College, and to Dr. Miller, St. Stephen's College.

While the University authorities, under the circumstances, cannot accept responsibility for finding suitable accommodation for students, they are anxious to give whatever assistance they can in the matter. A list of vacant rooms and apartments will be compiled in the office of the Bursar and made available to students at or before time of registration. It is obviously desirable that students should, if possible, make arrangements about accommodation before the opening of the session.

PHYSICAL EXAMINATION

All students entering the University of Alberta for the first time are required to take a physical examination at the time of registration.

MEDICAL SERVICES

All undergraduate students registered in the University are required by the Students' Union to pay an annual fee of five dollars (\$5.00), which is applied to the maintenance of a Medical Service Fund. Final year medical students are required to pay a reduced Medical Services fee of \$3.00 inasmuch as their financial responsibilities in case of accident or sickness are lessened by their intimate relationship to the medical and surgical clinics of the hospitals. This trust fund is administered by a committee consisting of the Provost, who presides as Chairman, the Medical Director, the Bursar, the President of the Students' Union, the President of the Wauneita Society, the Treasurer of the Students' Union and the Chairman of the Men's House Committee*. In return for the fee paid, students are entitled to medical treatment under such conditions and provisions as have been outlined in specially printed pamphlets, copies of which will be furnished to students on payment of fees. Every student should read these instructions carefully.

*Until the university residences are again occupied by the students, the Chairman of the Enforcement and Discipline Committee will replace the Chairman of the Men's House Committee.

STUDENT FUNCTIONS

All student functions are conducted under the general supervision of the Provost, and except by special permission are held in the university buildings. A written communication for permission to hold student functions must be initialled by the Schedule Man and addressed to the Provost at least ten days before the date set for any function.

MEETINGS OF STUDENT SOCIETIES

Applications for the use of rooms for students' meetings must be made to the Dean's office, Room 230 Arts Building.

ACADEMIC COSTUME

All gowns are to be of the customary Cambridge shape, i.e., for undergraduates a black stuff gown not falling below the knee with round sleeve cut above elbow; for bachelors, a black stuff gown falling below the knee with full sleeve cut to elbow and terminating in a point; for masters, a black stuff or silk gown falling below the knee with long sleeves with semi-circular cut at bottom.

Hoods are to be of the Oxford pattern, except those for the doctorate, which shall be of the Cambridge form.

Bachelors' and masters' hoods are to be of a spruce green silk, with, for bachelors, a border ($1\frac{1}{2}$ inches wide); for masters, a full lining of the color distinctive of the faculty.

FACULTY COLORS

The faculty colors are:

For Arts (including LL.D.)	Green and White
For Applied Science	Light Green
For Law	Scarlet
For Agriculture	Pale blue
For Education	Royal Blue
For Medicine	Crimson
For Dentistry	Buff
For Pharmacy	Cinnamon
For Divinity	Purple
For Household Economics	Pink
For Commerce	Silver Gray
For Nursing (B.Sc.)	Crimson and White

Doctors' hoods are to be of scarlet silk, with a full lining of the respective faculty color, the M.D. and D.D.S. hoods to be of the master's pattern.

Doctors are entitled to wear a full dress scarlet robe faced with silk of the respective faculty color.

All caps are to be of the ordinary black trencher shape with black tassels, with a black velvet cap with gold cord for doctor's full dress.

DEGREES IN ABSENTIA

Graduands who are unable to be present at Convocation should make application to the Registrar at least three days before the date of Convocation, for the degree to be conferred in absentia. A special fee of five dollars (\$5.00) is charged for this privilege. (The payment of this fee has been suspended for the duration of the war.)

SUMMER SESSION, 1943

July 1st—August 12th

FEES

Instruction per course, per session	\$25.00
Laboratory fee \$5.00 per course, maximum \$10.00.	
Registration	1.00
Medical Services .....	.50
Students' Union	1.00
Library	1.00

Since 1919 the University has conducted a summer session in co-operation with the Summer School for Teachers administered by the provincial Department of Education. Many teachers have availed themselves of the university courses offered at the Summer Session and have thus been enabled to proceed to degrees.

The Summer Session Announcement containing complete information may be obtained from the Registrar's office.

Admission to summer courses is on the same basis as to the courses of the winter session, a complete senior matriculation being required. Satisfactory attendance at a given summer course is deemed as fulfilling the ordinary attendance requirements of the course as given in the regular winter session.

The attention of students proposing to attend the Summer Session is directed to the statement on living accommodation on page 60.

Beginning with the year 1938 the University Summer Session held final examinations in all courses at the end of the summer term. This policy requires preparatory work to be done by the prospective students, and all Summer Session courses proceed on that basis. For the purpose of assisting students in making such preparation, in all courses syllabuses are prepared by the instructors which will be obtainable by students upon registration and payment of the registration fee of one dollar (\$1.00). In all cases the student may assume that a considerable degree of familiarity with the text-books specifically mentioned in the Summer Session Announcement is required. It must be definitely pointed out that this plan calls for a large measure of co-operation from students in the way of advance preparation; the actual courses of instruction for the most part serve for purposes of review and for establishing the relative emphasis to be placed on different items in the course.

Supplemental examinations, in event of failure at the Summer Session finals, will be written immediately at the commencement of the Summer Session next following, or at Edmonton and Calgary in the April next following if the subject appears in the regular university examination list at that time.

The attention of teachers is particularly called to the courses in psychology and education especially designed to meet the needs of teachers who are desirous of

making themselves conversant with present-day movements and developments in educational science.

Registration is limited to two courses. Other regulations regarding registration are included in this Calendar under "Faculty of Arts and Science", "Faculty of Education" and "School of Graduate Studies".

COURSES TO BE GIVEN AT THE SUMMER SESSION, 1943

Junior Courses:

Botany 1, English 2, French 2, German 2-40, Philosophy 3 ($\frac{1}{2}$ Course), Physics 10, Political Economy 1, Political Economy 10 ($\frac{1}{2}$ Course).

Senior and Graduate Courses:

Chemistry 40, 54, Classics in English 50, Education 54, 56, 58-61, 59, 101, 102, English 63, French 51, History 54, Mathematics 40, 42, 55, Philosophy 54, Philosophy 56, Political Economy 66, Physics 50.

FACULTY OF
ARTS AND SCIENCE

FACULTY OF ARTS AND SCIENCE

including the schools of

COMMERCE AND HOUSEHOLD ECONOMICS

Matriculation, page 29.

General University regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
Medical Service	5.00
Caution Money	5.00
Library	5.00

ARTS AND SCIENCE (Tuition and Laboratory)

- (a) B.A., B.Sc.:
- | | |
|--|----------|
| Instruction per session | \$110.00 |
| If paid in instalments, \$2.50 additional. | |
| Laboratory fee \$5.00 per course, maximum \$10.00. | |
- (b) B.Sc. in H.Ec., B.H.Ec.:
- | | |
|--|--------|
| Instruction per session | 120.00 |
| If paid in instalments, \$2.50 additional. | |
| Laboratory fee \$5.00 per course, maximum \$10.00. | |
- (c) B.Com.:
- | | |
|---|--------|
| Instruction per session, first year | 130.00 |
| Instruction per session, second and third years | 145.00 |
| If paid in instalments, \$3.00 additional. | |
| Laboratory fee \$5.00 per course, maximum \$10.00. | |
- (d) Special and partial students:
- | | |
|--|-------|
| Instruction per session, per course | 30.00 |
| Laboratory fee \$5.00 per course, maximum \$10.00. | |
| Auditors per course (see page 34) | 10.00 |

FACULTY OF ARTS AND SCIENCE

The Faculty of Arts and Science offers courses leading to the degrees of Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Commerce (B.Com.), and Bachelor of Science in Household Economics. It also offers a course leading to the combined degrees of Bachelor of Arts and Bachelor of Commerce and is associated with other Faculties in courses leading to the combined degrees of Bachelor of Arts and Bachelor of Laws, Bachelor of Science and Doctor of Medicine (or Dental Surgery), Bachelor of Arts and Bachelor of Science in Engineering, Bachelor of Arts and Bachelor of Science in Agriculture, Bachelor of Arts and Bachelor of Education, Bachelor of Science and Bachelor of Education, Bachelor of Commerce and Bachelor of Education. The Faculty includes the two schools of Commerce and Household Economics.

The entrance requirements for the courses leading to the various degrees may be found in the chapter on Matriculation.

Every student in the first year is assigned to an adviser whom he may consult at any time. Students of the first year are invited to consult the Dean with respect to the choice of courses for the senior years so that their program may form a coherent group of studies in harmony with their main intellectual interests. Students registered in the general course leading to the B.A. or B.Sc. degrees are advised to continue the study of two related subjects throughout the three years of the course. Students are *required* to continue in the third year the study of two subjects taken in the second year. For rules on "sequences" see page 70.

The courses in Arts and Science are classified in three divisions. Division A includes all courses in language and literature; division B, the social studies—history, philosophy and political economy; division C, mathematics and the natural sciences. The courses in each division are further described as junior or senior courses. The junior courses are designed for students of the first year but the regulations sometimes permit a student to take in the second year a junior course in a department not represented in his first year program. Except where permission to take a junior course in the second year is explicitly granted, senior courses are required. Certain courses numbered in the 40's are sometimes accepted for senior as well as junior credit. A list of junior and senior courses in divisions A, B, and C will be found on pages 68 and 69.

In addition to the regular University courses, the Faculty of Arts will offer in 1943-44, and probably thereafter, preliminary matriculation courses in French, German, Latin, Greek, Mathematics, Biology, Chemistry and Physics, available only to students who have been unable to obtain courses in these subjects at the Grade XII level in local High Schools.

The promotion of a student from the first to the second year is contingent on the satisfactory completion of all prescribed first year courses. This regulation applies also to students transferring from other Universities. For promotion to the second year in Commerce, and in all combined courses, a student must pass in all prescribed courses of the first year and obtain a general average of 60%.

FACULTY OF ARTS AND SCIENCE LIST OF COURSES AND PREREQUISITES

Junior Courses		*Senior Courses		Honor and Graduate Courses
Course	First Year	Pre-requisite	Second and Third Years	
DIVISION A				
Classics in English	2, 4*	Senior Matric.	50, 51 52, 53, 57, 59, 60 62, 63, 64, 65, 66, 67	104, 110
French	1		40	101, 102, 107, 111
General Linguistics	2	Senior Matric.	51, 57, 60, 64	105
German	1			101, 103, 107, 115
German	2	1 or Senior Matric.		102
Greek	1		40, 57	
Greek	2		40	
Hebrew (St. Stephen's College)	1, 2		54	
Latin	1, 2	Senior Matric.	40, 52	
Old and New Testament Literature			40, 55	
Phonetics (French and German)			51	
*Spanish	1, 2			106
DIVISION B				
Philos., Hist. and Pol. Ec.				
Ancient History			52, 53, 55, 56†	
Christian Apologetics* (St. Joseph's College)				
Education			54 56	
History	2, 4		51, 54, 55, 56, 57, 58, 60, 65, 67†	106
Hist. of Greek Art				102, 103, 107, 108, 109, 110
Philosophy	2, 3 4*		54, 56 53, 57, 58	
Political Economy	1		61, 64, 65, 66, 67, 68, 69	101, 102, 103, 120
Political Science			63	101, 102, 103, 104, 105
Psychology			51, 52, 58	
			59	Phil. 2 or Psych. 51

COURSES AND PREREQUISITES

69

DIVISION C			
Math. and Natural Sciences			
Bacteriology	1*	60 61 51, 52 71	Chem. 10 & Bot. 1 or Zool. 1 Chem. 42 Bot. 1. Biochem. 61
Biochemistry	1	50 51, 53 52	1 1, Physics 10, Chem. 40, 42 Bot. 1 and Geol. 1
Biology	1	55 40, 42 54	40 and Physics 10
Botany	1	58 61 62, 64 63 51	40 61 62 Bot. 1 or Zool. 1 or Ent 1 and Math. 42 or 44 or equiv- alent courses
Chemistry	1 40, 42	51, 59, 53 55 54 58 61 62, 64 63 51	1 1 or 53 51 51 51 51 51 51 51
Entomology		41, 55, 56, 61, 63 42, 43, 44, 51, 52, 53 57	101, 102, 103, 104 105, 106, 107
Genetics		62, 50 46, 48 51 53, 54	100, 101, 102, 103
Geology	1	60 61 51, 52 53, 55	Chem. 42 1 or 2 51
Household Economics	1a and 2a		
Mathematics	40, 42, 43, 44 41	Senior Matric. 40 (co-requisite)	
Physics	1 21, 40	Senior Matric.	
Physiology			
Zoology	1, 2		

*English 4 is restricted to students in Commerce, Household Economics and in the combined courses of Science and Medicine, Arts and Agriculture, Arts and Commerce.

Bacteriology 1 and Physiology 60 are restricted to students in Household Economics. Spanish courses are restricted to students in the School of Commerce.

Christian Apologetics and Philosophy 4 offered by St. Joseph's College are restricted to Roman Catholic students.

†Some senior courses may not be offered in 1943-44. See announcements of the departments.

Senior matriculation means senior matriculation in the corresponding high school courses.

The minimum passing mark in all courses is 50% but four of the prescribed senior courses must be passed with second-class standing, or a mark of at least 65%. This requirement applies to students proceeding to the degrees of B.A., B.Sc. (including the B.Sc. in Household Economics) and B.Com. Students lacking the requisite number of second classes should consult the Registrar regarding further procedure.

In the general course in Arts or Science, not more than two courses may be selected from one department in a given academic year. Not more than five courses may be taken in any one department in satisfaction of the requirements for the pass degree.

Certain courses, junior and senior, are offered in the Summer School which is held annually in the months of July and August. The courses offered in 1943 are listed on page 63. Detailed information concerning Summer School courses may be obtained from the Registrar.

No candidate for the Bachelor's degree in the Faculty of Arts and Science will be recommended to the General Faculty Council for the award of the degree until three regular academic sessions, September to April, have elapsed from the date of registration in the first year.

Except by special permission of the Council of the Faculty, no student under its jurisdiction may offer for credit in any period of twelve months from 1st September to 31st August more than five courses either in the regular winter session from September to April or in both the winter and the summer session. Except by special permission of the Council of the Faculty no student may take in the summer session more than two courses.

Students proceeding to a Bachelor's degree in the Faculty of Arts and Science will be required to attend at least one regular academic session, September to April. Exceptions may be made in respect of this rule in the cases of teachers who have had at least two years' experience subsequent to receiving their permanent certificates. Such students may meet the requirements for the degree of Bachelor of Arts or Bachelor of Science by attendance at summer sessions only. They are warned, however, that the University cannot undertake to offer in summer sessions all the courses which may be desired for the B.A. degree or required for the B.Sc. degree.

Students entering theology in St. Stephen's College may be exempted from two senior courses selected from Division A or B by presenting certificates of having completed equivalent courses in the College.

Roman Catholic students in St. Joseph's College may be exempted from one senior course in Division B on presentation of a certificate from the college showing that they have satisfactorily completed the course in religious knowledge designated Christian Apologetics as given in St. Joseph's College. Further, such students may substitute Philosophy 4 as given in the College for Philosophy 2; and Philosophy 56 as given in the College for a senior course in Philosophy.

A student with approved qualifications may proceed to the degree of Bachelor of Arts or Bachelor of Science by taking a course in Honors under the direction of one of the departments. Courses in Honors require four years from matriculation. The regulations governing students in Honors are printed on page 73 and the prescriptions of the various departments for courses in Honors follow.

DEGREE OF B.A.—GENERAL COURSE**First Year:**

Two courses from Division A, one from B, one from C, and one course from any Division.

The first year courses in Division A for candidates for the B.A. degree in the General Course are English 2, French 2, German 2, Latin 2, Greek 2. The courses in Division B are History 2 and 4, Philosophy 2 and 3, and Political Economy 1. Philosophy 4 given at St. Joseph's College is available for Roman Catholic students. The courses in Division C are Biology 1, Botany 1, Chemistry 1 and 40, Geology 1, Mathematics 40, Physics 1 and 40, Zoology 1. Chemistry 1 may not be taken by a student who has credit in Chemistry of senior matriculation. Physics 1 may not be taken by a student who has credit in Physics of senior matriculation. Biology 1 may not be taken by a student who has credit in Biology of senior matriculation.

Students in the first year of the General Course who require a second foreign language in which they have not matriculated may, with the permission of the Dean, take one of French 1, German 1, Greek 1, Latin 1, but credit for one of these beginners' courses is not granted until a second course in the same language has been satisfactorily completed in the second year.

***Second Year:**

Two courses from Division A, one from B, and two courses from any Division.

or

One course from Division A, two courses from Division B, and two courses from any Division.

One of these five courses may be a first year course in a department not represented in the courses already taken in the first year, or the second unit of a language if it be necessary to obtain standing in a language course for beginners taken in the first year.

***Third Year:**

Two courses from Division A, one from B, and one course from any Division.

or

One course from Division A, two from Division B, and one course from any Division.

*Not more than two courses may be selected from any one department in an academic year.

DEGREE OF B.Sc.—GENERAL COURSE**First Year:**

Three courses from Division C in different departments, and two courses from Divisions A and B.

The first year courses in Divisions A and B for candidates for the B.Sc. degree in the General Course are the same as those for the B.A. degree. The courses in Division C are Biology 1, Botany 1, Chemistry 1 and 40, Geology 1, Mathematics 40, Physics 1 and 40, Zoology 1. Biology 1 may not be taken by a student who has credit in Biology of senior matriculation,

nor by a student preparing for advanced work in the biological sciences: such a student will take Botany 1 or Zoology 1. Chemistry 1 may not be taken by a student who has credit in Chemistry of senior matriculation. Physics 1 may not be taken by a student who has credit in Physics of senior matriculation.

A student in the first year of this General Course who has not matriculated in French or German may, with the permission of the Dean, take French 1 or German 1 but credit in this course is not granted until a second course in the language has been satisfactorily completed in the second year.

***Second Year:**

Four courses from Division C and one course from Division A or B.

One of the four Division C courses must be a first year course in a department not represented in the courses already taken in the first year and three must be senior courses.

With the permission of the Dean, students may take the A or B course from the first year list.

Students who declare their intention to enter the Faculty of Education may substitute one of the Division A or B courses required by the Faculty of Education for the junior course from Division C.

***Third Year:**

Three courses from Division C, and one course from Division A or B.

*Not more than two courses may be selected from any one department in an academic year.

NOTE: Students of the General Course are advised to carry the study of at least two related subjects throughout the three years of undergraduate work and otherwise to choose their courses so as to offer a coherent program of study in harmony with their special interests.

Two of the subjects passed in the second year must be continued in the third year or, as commonly stated, two "sequences" of senior courses are required. Normally, any two courses in the same subject numbered in the 40's or higher may be considered a sequence. Certain combinations of related subjects are also permitted as sequences, e.g., senior courses in Latin or Greek; French and German; Philosophy, Psychology and Education; French 51 or 57 with English 57 or 63; Greek Art with Ancient History; Zoology and Entomology; Entomology 61 and Genetics; Botany and Genetics; Chemistry 54 and Geology 54; Chemistry 58 and Geology 51; Zoology 52 and Geology 53; Physics 51 and Geology 54; Chemistry 54 and Geology 58.

Old and New Testament Literature, Christian Apologetics, and junior courses in the languages taken in the second year are not accepted as part of any "sequence."

Not more than two courses may be taken in any one department in any given year and not more than five courses in any one department during the three years of the general course.

Of the senior courses taken in the second and third years, four must be passed with at least second class standing.

Under present arrangements in the high schools of Alberta, a student may find it difficult to present two foreign languages at matriculation. For students especially interested in the study of languages and literature and for candidates for certain professions which require two languages, the University will offer until further notice, beginners' courses in French, German, Latin and Greek. University credit is not granted for a beginners' course until a second course has been satisfactorily completed in the second year, but the privilege by which a student of the second year may include a first-year subject in his program permits substantial progress in a second language without the penalty of taking additional courses beyond the prescribed programs in Arts and Science.

DEGREES WITH HONORS IN THE FACULTY OF ARTS AND SCIENCE

A student with approved qualifications may proceed to the degree of Bachelor of Arts or Bachelor of Science by following a more concentrated course of study in a special field under the supervision of one of the departments.

The time required for an honors degree is four years from senior matriculation and the course may only be interrupted by special permission of the Council of the Faculty upon the recommendation of the Committee on Honors.

A student may apply for admission to an honors course at the beginning of either the first or second year, but formal admission to honors comes at the beginning of the second year. A student with high standing at matriculation who wishes to take an honors course should consult the head of the department in which he proposes to do his major work at the time of his first registration. A student who, during his first year, decides to become a candidate for honors should consult the head of the department when he makes his decision. He will be admitted to honors at the beginning of the second year if he obtains high standing in the general course especially in junior courses in the field selected for honors.

For students who state their intention to become candidates for honors at the beginning of the first year, the departments usually prescribe a program of study which meets all the requirements of the general course so that a student refused admission to honors as a result of his work in the first year may proceed with the work of the second year in the general course without penalty. Some departments prescribe a more specialized program in the first year. A student in such a department, who is not recommended for admission to honors at the end of the first year, must subsequently complete all the requirements of the first year of the general course.

All candidates for honors in the first year must pursue studies in at least two of divisions A, B, and C.

An honors student who is transferred to the general course at the end of his second year must subsequently meet all the requirements of the general course in which he is deficient. A student, who is not recommended to proceed in honors at the end of the third year, may be recommended forthwith for a pass degree or be asked to complete some or all of the requirements of the general course in which he is deficient. A student who has not met satisfactorily all the requirements in honors at the end of the fourth year may be recommended forthwith for a pass degree or asked to meet further requirements of the general course.

In the second and third years, students in honors may confine their work to one division but not to one department. The prescriptions of the departments for honors normally demand a major concentration of study in one department and a minor concentration in a related department.

At the end of the fourth year, many departments require candidates for honors to take a final comprehensive examination as well as examinations in the courses prescribed for the year; other departments set final comprehensive examinations covering the work of all the senior years but do not require examinations in courses taken in the final year.

Honors are awarded in two classes, first and second. For first class honors, an average of 80% is required; for second class honors, 65%. In awarding honors, the entire university record of the student may be considered.

The courses in honors are administered by a committee of the Faculty of Arts and Science. The chairman is the Dean and inquiries about courses in honors should be addressed to him.

The prescriptions of the departments for courses in honors follow.

DEPARTMENT OF BOTANY

First Year:

Botany 1, Chemistry 40, Physics 1 or 40, Zoology 1, an option from Divisions A or B; Physical Education.

Second Year:

Two senior courses in Botany, Chemistry 42, Geology 1, an option from Divisions A or B.

Third Year:

Two advanced courses in Botany, Mathematics 42 or 40; two options (Biochemistry 61, Chemistry 54, Entomology 61, Geology 53, Zoology 51, suggested).

Fourth Year:

Two advanced courses in Botany, Genetics 51, an option (Biochemistry 71, Geology 55, Zoology 52, suggested).

Options are to be selected in consultation with the department. Attention will be given to the requirements of those who intend to teach and of those who propose to undertake research in some branch of botanical science.

Honor students in botany are expected during the summer vacations to make themselves acquainted with the Canadian families of flowering plants.

DEPARTMENT OF CHEMISTRY

First Year:

Chemistry 40, Chemistry 42, Mathematics 40, one from Division A or B, one option; Physical Education.

Second Year:

Chemistry 54 and 58, Mathematics 55, one option (German 2 or 40 if German 1 is taken in first year), an option.

Third and Fourth Years:

The equivalent of eight full courses will be required. Physics 46, Chemistry 102, 103, and four half-courses chosen from Chemistry 105, 106, 107, 108 and 109 must be included.

It is suggested that one of the eight courses be selected from Divisions A or B.

In addition to the regular course examinations, candidates for honors may be given one or more oral or written examinations (in the field of Chemistry) at the end of the fourth year.

NOTE: All options shall be selected after consultation with the Department of Chemistry.

Attendance at the Journal Club, which meets once a week, is required in the third and fourth years.

DEPARTMENT OF CLASSICS

A statement will be found below of the general scheme of courses required to obtain honors in this department. It is not implied that this scheme must be rigidly followed; the department is prepared at any time to discuss with prospective or actual students reasonable equivalents designed to meet special needs or desires of the persons concerned. In the courses dealing with the literary history, the economic and political history, and the private life of the classical peoples oral examinations may at any time replace written tests, and a comprehensive examination, written or oral as the department may determine, will be a necessary condition for attaining final honors.

Students who may desire an honor course in Latin and German, in Greek and French, in Greek and German, or in Greek and Philosophy, can obtain information and advice on application to the department.

First Year:

Greek 1, Latin 2, Classical Survey Course 50 (Greek Classics), or Classical Survey Course 52 (Greek History). Two other courses at the student's option; the department will be glad to advise; Physical Education.

Second Year:

Greek 40, one senior Latin course, Classical Survey Course 54 (Ancient Art) or Classical Survey course 55 (Graeco-Roman Political Theory), Classical Survey Course 52 (Greek History) or Classical Survey Course 50 (Greek Classics), Classical Survey Course 51 (Latin Classics), or Classical Survey Course 53 (Roman History). An option, approved by the department, may be substituted for *one* of the Survey courses listed above.

Third Year:

One Senior Greek course, one course in Honor Greek, one course in Honor Latin, either Classical Survey course 52 (Greek History) or Classical Survey Course 53 (Roman History) or Classical Survey Course 51 (Latin Classics), either Classical Survey Course 54 (Ancient Art) or Classical Survey Course 55 (Graeco-Roman Political Theory). An option, approved by the department, may be substituted for *one* of the Survey courses listed above.

Fourth Year:

Either Greek or Latin as a major, two courses, Latin or Greek as a minor, one course; one approved option.

Honors in Classics, Ancient History and Archaeology:

A program for Honors with particular emphasis on Ancient History and Archaeology may be arranged by discussion with the Department.

NOTE: Courses in Sanskrit, Comparative Philology, Comparative Syntax, Greek Dialects and Italic Dialects are also offered by the department and may be credited towards the M.A. Degree.

Honors in Latin and French**First Year:**

Latin 2, French 2, Classical Survey Course 50 (Greek Classics). Two other courses at the student's option; the department will be glad to advise; Physical Education.

Second Year:

One Latin course, one French course, two options from Divisions A and B, of which one should preferably be Classical Survey Course 51 (Latin Classics), either in this year or the third year.

Third Year:

One Latin course, one French course, two options from Divisions A and B, Phonetics 106 or General Linguistics 105.

Fourth Year:

Two Latin courses, one French course, one option from Divisions A and B.

NOTE: Classical Survey Course 53 (Roman History) and 55 (Graeco-Roman Political Theory) are recommended definitely for selection among the options of the second, third and fourth years.

(For Honors in French and Latin, see under Department of Modern Languages.)

DEPARTMENT OF ENGLISH

Students wishing to read for Honors in English should consult the head of the department at the beginning of the first year. Their registration should include English 2, History 2 or 4.

Students deciding during or at the end of the first year to undertake honors in English must consult the head of the department at the earliest possible moment in order to ascertain whether their first year courses, and their standing in these courses are acceptable as a basis for admission to honors at the beginning of the second year; and in cases where the first year courses do not seem to provide an adequate basis, to discuss what extra work should be taken to rectify the situation.

Second Year:

English 104 (Anglo-Saxon), English 110 (Chaucer), *continuation of language studied in first year; an option (to be chosen in consultation with the head of the department).

Third Year:

The work of the third year will consist chiefly of a study of Shakespeare and his period (English 53 with additional reading) and Milton and his period (English 60 with additional reading), with the ordinary examinations in these courses supplemented by such additional reports as shall be required.

Upon entering his third year the student, in consultation with the head of the department, will elect a special program of reading, to be followed under the guidance of a member of the department for the ensuing two years. This program of reading may be based upon the study of an author and his period, or upon the study of a literary species. Among possible subjects, the following are suggested: Pope or Swift and his period, Wordsworth or Scott and his period, Carlyle and his period, History of Literary Criticism, English Drama since Shakespeare, English Satire.

The student will also take such course or courses in the department of English or related departments as his adviser may see fit and will write the ordinary examinations in such courses.

Fourth Year:

In the fourth year the student will devote himself chiefly to the assigned program of reading. He will report to his adviser at stated intervals, orally or in formal essays. As in the third year, he will take such courses in English or related departments as his adviser shall decide.

*A student who shows a good reading knowledge of the language may be permitted to substitute another course, in consultation with the head of the department.

Examinations:

At the end of his fourth year the honor student shall undergo:

1. Such examinations on his program of reading as his adviser may see fit.
2. Written examinations intended to test:
 - (a) his general knowledge of English literature, and
 - (b) his specific knowledge of the authors and periods studied in the courses of the second, third and fourth years.

These written examinations may, at the discretion of the department, be supplemented by an oral examination.

DEPARTMENT OF GEOLOGY**First Year:**

(Recommended program) Chemistry 40, Zoology 1, Botany 1, Geology 1, one option from Division A or B; Physical Education.

Second Year:

Geology 51, Geology 53, Physics 40; one option from Divisions A or B*, one option from Division C* (Mathematics recommended).

Third Year:

Geology 54, Geology 55, Geology 59, Chemistry 54; one option.*

Fourth Year:

Geology 58, Geology 101; three options.*

Students are advised to have a reading knowledge of both French and German.

At the end of the fourth year a candidate for honors will be required to take an oral or a written examination in the field of geology.

*To be selected after consultation with the Department of Geology.

DEPARTMENT OF HISTORY**First Year:**

History 2 or 4; Political Economy 1; English 2; French 2 or German 2; one course from Division C; Physical Education.

Second Year:

Two senior courses in History; two approved senior options (from the Modern Languages, Philosophy and Political Economy); and a further option which may be a third course in History.

Third Year:

Three senior courses in History; two approved courses in Political Economy, a Modern Language, or Philosophy.

Fourth Year:

The courses of the fourth year are arranged in consultation with the head of the department. No examinations in courses are taken at the end of the fourth year.

For the final comprehensive examination in 1944 papers will be set on the following subjects:

- (1) the social and political history of Canada;
- (2) the history of the United States;
- (3) the history of the British Isles since 1485;
- (4) a period of European History;
- (5) economic theory (since Adam Smith) and economic history (from the Industrial Revolution);
- (6) political theory and government;
- (7) a special subject offered by the candidate;
- (8) sight translation from *either* French *or* German.

DEPARTMENT OF MATHEMATICS**First Year:**

Mathematics 40, Mathematics 41, Physics 21, Chemistry 40, or another option, one option from Divisions A and B; Physical Education.

Second Year:

Mathematics 101, Mathematics 55, Mathematics (another senior course), Physics (senior course); Physics (another senior course) or Political Economy (senior course) or Chemistry or Philosophy.

Third and Fourth Years:

At the end of the final year there will be given two "comprehensive" papers covering the following: Analysis, Geometry, Logic, Mechanics, Astronomy, Probability, Statistics, Finance.

Students will select their courses and reading in consultation with the department. Attention will be given to the requirements of those who intend to teach and of those who intend to apply mathematics to another field; in every case, in the third and fourth years, at least two courses will be taken in other departments, of these at least one being Physics.

DEPARTMENT OF MODERN LANGUAGES

Honors in Modern Languages and Literature are, for the present, based on an intensive study of the French and German language and literature.

The chief emphasis will be laid on mastery of one of these languages and on the acquisition of a substantial knowledge of its literature. This will call, ordinarily, for the collateral study of another language and literature.

Mastery of the language is interpreted to mean the ability

- (a) to read it fluently and intelligently;
- (b) to write it correctly and idiomatically;
- (c) to understand it as a spoken language and to speak it with some facility.

Substantial knowledge of its literature is interpreted to mean

- (a) a general knowledge of the literature;
- (b) a specific knowledge of the masterpieces;
- (c) a critical knowledge of an important period or trend of the literature;
- (d) a general knowledge of the entire, and a specific knowledge of the immediate, cultural backgrounds.
- (e) a knowledge of the culture of other peoples insofar as this culture had an important bearing on French or German culture and literature.

First Year:

- 1. A French course,
- 2. A German course,
- 3. An option from Division B (Philosophy or History recommended),
- 4. An option from Division A or B,
- 5. An approved option,
- 6. Physical Education.

Second Year:

- 1. An approved French course,
- 2. An approved German course,
- 3. An option from Divisions A or B, preferably an English course to correspond to the French course (French 57 and English 57, French 51 and English 64).
- 4. An approved option.

Third and Fourth Years:

General Linguistics 105 or Phonetics 106.

French and German Phonetics 106 should be taken in the third year, and General Linguistics 105 in the fourth year.

The subjects of study for the third and fourth years must be chosen in consultation with the Department. The principle underlying the choice of subjects of study will be that of a satisfactory integration, determined on the basis of the individual student's aptitude and interest.

Apart from regular course examinations students will, at the end of the fourth year, be required to pass a comprehensive examination on the general field of their honors work.

An oral examination in the language or languages studied may also be required.

Honors in French and Latin

First Year:

1. French 2.
2. Latin 2.
3. Classical Survey course 50 or 51.
4. An option.
5. A second option.
6. Physical Education.

Second Year:

1. A French course.
2. A Latin course.
3. An option from Divisions A and B, preferably an English course to correspond to the French course (French 57 and English 57, French 51 and English 64).
4. A second option from Divisions A and B.

Third Year:

1. A French course.
2. A Latin course.
3. An option from Divisions A and B (same recommendation as to English).
4. A second option from Divisions A and B.
5. French 102 A or B.
6. Phonetics 106.

Fourth Year:

1. A French course.
2. A second French course.
3. A Latin course.
4. An option from Divisions A and B.
5. French 102 A or B.
6. General Linguistics 105.

Honors Moderns

NOTE: French and German Phonetics 106 should be taken in the third year, and General Linguistics 105 in the fourth year.

DEPARTMENT OF PHILOSOPHY

Under this department will fall these groups:

- (1) Honors in Philosophy and Psychology,
- (2) Honors in Psychology and Philosophy,
- (3) Honors in Philosophy and Greek.

Students must consult the head of the department of philosophy in regard to (a) their choice of group; (b) such special work as may be prescribed in their major subject; (c) the arrangement of a program of sessional studies (lecture

courses, seminars, etc.); (d) optional courses outside the department of philosophy. All students, with the exception of those under (3), will be expected to show a competent acquaintance with the following topics: history of philosophy; present-day problems of philosophy; history of ethics; ethical systems; implications of modern psychology for ethical philosophy; present-day ethical problems; history of psychology; experimental methods of psychology; present-day schools of psychology and their leading representatives; applications of psychology.

Special reading will also be required in *one* of the following: logic, aesthetics, mediaeval philosophy, metaphysics.

In the case of students under (3), the advanced study of psychology will be replaced by some field of study allotted by the department of classics.

The final examination will consist of the following:

- (1) History of Philosophy (one paper of three hours);
- (2) Contemporary Philosophy (one paper of three hours);
- (3) Ancient Philosophy or Mediaeval Philosophy or Modern Philosophy (one paper of three hours);
- (4) Ethics (one paper of three hours);
- (5) Psychology (two papers of three hours each);
- (6) One essay paper of three hours.

Students majoring in philosophy will omit one paper in psychology and those majoring in psychology will omit (3).

Students offering Greek as their second subject will omit (5).

DEPARTMENT OF PHYSICS

First Year:

Physics 21, Mathematics 40, Mathematics 41, Chemistry 40, an option from Division A or B; Physical Education.

First Year Applied Science may be accepted in consultation with department.

Second Year:

Physics 42, Physics 46, Mathematics 55, *an option, *an option from Division A or B.

Third and Fourth Years:

Before entering upon the work of the third year, the student in consultation with the department will arrange a program of study for the third and fourth years. This program will include the following courses which are considered to be fundamental:

Physics 51, 53, and 54. Mathematics 57.

In arranging the scheme of work for these two final years, the end in view will be a well coordinated program of study in which it will be possible for the student, if he so desires, to select some particular field of physics for special study. In any case, the courses selected will be supplemented by a program of reading.

The student will write the regular examinations in each course taken. In addition, there may be at the end of the final year, a written comprehensive examination on the work in physics covered during the third and fourth years.

*Options are to be selected in consultation with the department.

DEPARTMENT OF POLITICAL ECONOMY**First Year:**

Political Economy 1; two courses from Division A; one course from Division C; one option to be selected with the advice of the department; Physical Education.

Second Year:

Two courses in Political Economy, Mathematics 42 or 43, two options to be chosen in consultation with the department.

Third and Fourth Years:

Before entering the third year each student will arrange, in consultation with the department, a program of study and lectures to prepare himself in the compulsory, and in three of the optional subjects of final examination.

Final Examination Papers:

Final examinations will be set in the following subjects:

(a) Compulsory:

(1) Economic Theory; (2) Economic Programs and History of Economic Thought; (3) Money and Banking.

(b) Optional (three to be chosen):

(4) Public Finance; (5) International Trade and Transportation; (6) Economics of Agriculture; (7) Political Science; (8) Economic History; (9) Labor Problems; (10) Corporation Finance and Risk.

Students are required to satisfy the department that they possess a reading knowledge of at least one modern foreign language.

COMBINED COURSES**COMBINED COURSE LEADING TO THE DEGREE OF
B.A. AND B.COM.****First Year:**

English 4; French 2 or German 2; Political Economy 1; Political Economy 10; a course from Division C; one option; Physical Education.

Second Year:

A modern language continued from the first year; a Division B course; Mathematics 42; Political Economy 61 or 63 or 65 or 67 or 68 or 69; an option (a first year course may be chosen).

Third Year:

Accounting 1; a Division A course; a Division B course; Political Economy 61 or 63 or 65 or 67 or 68 or 69; Commercial Law 41 (if given) or an option.

Fourth Year:

Accounting 52; Political Economy 64 or 66; Mathematics 43 or Political Economy 73 and Accounting 55; Commercial Law 41 or 51; and one approved option. (For approved options see under School of Commerce.)

Fifth Year:

Political Economy 64 or 66; Mathematics 43 or Political Economy 73 and Accounting 55; Commercial Law 51 (if not already taken); two or three

approved options to make up five courses. (For approved options see under School of Commerce.)

Not more than *two* courses may be taken in one subject in any one year.

Of the senior Arts courses taken in the second, third and fourth years, at least *four* must be passed with second class standing to satisfy the requirements of the B.A. degree. For the B.Com. degree at least *four* of the senior courses in the regular Commerce curriculum must be passed with second class standing.

Entrance into second year is contingent on the student passing all first-year courses with a general average of 60%.

The B.A. degree will be awarded at the end of the fourth year and the B.Com. degree at the end of the fifth year.

By agreement with the Institute of Chartered Accountants of Alberta, graduates in Commerce who have credit in Commercial Law 41 and Commercial Law 51 and have obtained second class standing in Accounting 52 and Accounting 53 are eligible for exemption from two years' articles and from the intermediate examinations of the Institute.

COMBINED COURSE LEADING TO THE DEGREES OF B.A. AND B.Sc. IN ENGINEERING

A student may not enter this combined course (a) unless he has obtained an average of at least 60% in senior matriculation and (b) until his registration has been approved by the Dean of the Faculty of Applied Science.

First Year:

English 2; French 2 or German 2; a course from Division B; Mathematics 40; Chemistry 40; Physical Education.

If the course from Division B be Political Economy 1, Political Economy 11 or Political Economy 51 shall not be taken when prescribed for students of Applied Science, and another Division B course must then be substituted.

Second Year:

A student may not enter the second year of this combined course unless he has completed the first year with an average of at least 60%.

One course from Division A; one course from Division B; a further course from Division A or B; one of—Mathematics 42, 43, 53, Chemistry 42; Physics 21; Drawing 4.

A student who takes Chemistry 42 at this stage and later enters Chemical Engineering will be required to substitute another senior C course for Chemistry 42 in the third year of Chemical Engineering.

Third Year:

One course from Division A; one course from Division B; a further course from Division A or B in the division already selected in the second year; Mathematics 41; Drawing 2.

The B.A. degree may be granted at the end of the third year to a student who has satisfactorily completed the above prescription and has satisfied the requirements of the Faculty of Arts and Science concerning second-class standing in four senior courses and concerning "sequences". (See pages 70 and 72.)

Fourth, Fifth and Sixth Years:

As for the second, third and fourth years in Engineering.

Students intending to enter civil or mining engineering are required to spend at least one summer on practical survey work in the field prior to entering the fourth year of the combined course.

**THE COMBINED COURSES LEADING TO THE DEGREES
OF B.Sc. and M.D.; AND B.Sc. AND D.D.S.**

A student may not enter either of these combined courses unless, (a) he has obtained an average of at least 60% in senior matriculation; (b) his registration is approved by the Dean of Medicine.

First Year:

English 4; French 2 *or* German 2; Latin 4; Physics 40; Chemistry 40; Zoology 2; Physical Education.

A student whose only foreign language at matriculation is Latin may take French 1 instead of French 2 *or* German 1 instead of German 2.

Second Year:

No student may enter the second year of the combined course unless he has successfully completed the first year with an average of not less than 60%.

A further course in French *or* German*; Psychology 51; Zoology 3 and Mathematics 44 (two half-year courses); Chemistry 42; *one* of Chemistry 54 *or* 58, Physics 42 *or* 46, Zoology 51, Entomology 61, Genetics 51.

A laboratory course in Chemistry (quantitative analysis), called Chemistry 44, is also required from all students who take one of the options other than Chemistry 58.

*A student who has been permitted to take French 1 in the first year will continue with French 2 *or* 40 and a student who has been permitted to take German 1 in the first year will continue with German 2 *or* 40.

Third Year to Seventh Year (Medicine) or Sixth Year (Dentistry).

The prescriptions of the first professional year and of subsequent years in Medicine *or* Dentistry.

The B.Sc. degree may be granted at the end of the fourth year.

For the B.Sc. degree, students must obtain at least two seconds in senior courses taken in the second year.

**COMBINED COURSE LEADING TO THE DEGREES OF
B.A. AND LL.B.**

First Year:

English 2; Latin 2 *or* French 2; History 2 *or* 4; Political Economy 1; *one* course from Division C; Physical Education.

Second Year:

No student may enter the second year of the combined course unless he has successfully completed the first year with an average of not less than 60%.

A senior course in English; a further course from Division A (a senior course in the language taken in the first year is strongly recommended);

History *57 or 58; Political Economy 63 or 66 or 67 or 69 or Psychology 52; a course from Division B or C.

With the permission of the Dean of Arts and Science, one of the courses not specifically prescribed may be a junior course in a department not represented in the courses taken in the first year.

Third Year:

History 58 or *57; and the prescription for first year Law.

Fourth Year:

The prescription for second year Law.

The degree of B.A. may be granted at the end of the fourth year.

Fifth Year.

The prescription for third year Law.

*History 57 is offered only in alternate years.

**COMBINED COURSE LEADING TO THE DEGREES OF B.A.
AND B.Sc. IN AGRICULTURE****First Year:**

English 4; French 2 or German 2 or Latin 2; Political Economy 1; Botany 1; Chemistry 40; Physical Education.

With the permission of the Dean of Arts and Science, French 1 or German 1 may be taken if a student has matriculated with Latin as his only foreign language.

Second Year:

No student may enter the second year of the combined course unless he has successfully completed the first year with an average of not less than 60%.

One course from Division A; one course from Division B; a further course from Division A or B; Mathematics 40 or 44; Chemistry 42.

If the language course taken in the first year be a course for beginners, a further course in the same language must be taken in the second year.

For Agriculture, Mathematics 44 is recommended, but students intending to enter the College of Education may take Mathematics 40.

Third Year:

One course from Division A; one course from Division B; a further course from Division A or B; one course from Division C.

The degree of B.A. may be granted on successful completion of three years' work provided the rules of the Faculty of Arts and Science concerning second-class standing in four senior courses and concerning "sequences" have been satisfied. (See pages 70 and 72.)

Fourth Year:

Horticulture 1; Dairying 1; Field Crops 50; Poultry 1; Animal Husbandry 2; Entomology 1; Zoology 4; Agricultural Engineering 2; an option.

Fifth Year:

Bacteriology 1; Soils 51 and 52; options, under faculty advice, for at least 16 hours.

Certain fourth and fifth year courses may be interchanged with the approval of the Registration Committee and the Dean of Agriculture.

**COMBINED COURSES LEADING TO THE DEGREES OF B.A., B.Ed.;
B.Sc., B.Ed.; B.Com., B.Ed.**

See page 224.

SCHOOL OF HOUSEHOLD ECONOMICS

THE B.Sc. DEGREE IN HOUSEHOLD ECONOMICS

First Year:

English 4 or French 2 or German 2 or Latin 2; Chemistry 42; Zoology 1; Political Economy 1; Household Economics 2 and 3; Bacteriology 1, first term; Household Economics 1, second term; Physical Education.

Second Year:

One course from Division A or B; Chemistry 45; Physiology 60; Biochemistry 61; Household Economics 55, an approved option.

Third Year:

One course from Division A or B; Chemistry 58; Hygiene and Sanitation 51; Household Economics 56, 57, 58, 59.

THE DEGREE OF B.H.Ec.

For students entering from the provincial Schools of Agriculture

(for matriculation requirements see page 30)

Junior Courses:

First Year:

One course from Division A; Horticulture 1 or one course from Division A or B; Mathematics 4; Chemistry 1 or 40; Physics 1 or 40; Household Economics 32 and 33; Physical Education.

Chemistry 1 may not be taken by a student with credit in Chemistry of senior matriculation; and Physics 1 may not be taken by a student with credit in Physics of senior matriculation.

Second Year:

One course from Division A or B; Political Economy 1; Chemistry 42; Chemistry 45; Zoology 1; Bacteriology 1 (1st term); Household Economics 31.

Senior Courses:

Third Year:

Biochemistry 61; Hygiene and Sanitation 51; Chemistry 58; Household Economics 58; Household Economics 56, 57, 59.

SCHOOL OF COMMERCE

First Year:

In 1943-44 and alternate years:

Accounting 1; English 4; Mathematics 42; Political Economy 1; Political Economy 10 (second term); a modern language; Physical Education.

Entrance into second year is contingent on the student passing all first-year courses with a general average of 60%.

In 1944-45 and alternate years:

Accounting 1; Commercial Law 41; English 4; Mathematics 42; Political Economy 1; Political Economy 10 (second term); Physical Education.

Second Year:

In 1943-44 and alternate years:

Accounting 52; Accounting 55 (second term); Commercial Law 51; Political Economy 64; Political Economy 73 (first term); a modern language.

In 1944-45 and alternate years:

Accounting 52; Commercial Law 41; Mathematics 43; Political Economy 66; a modern language (second course).

Third Year:

In 1943-44 and alternate years:

Accounting 55 (second term); Commercial Law 51; Political Economy 64; Political Economy 73 (first term); two approved options.

In 1944-45 and alternate years:

Mathematics 43; Political Economy 66; a modern language (second course); two approved options.

Approved Third Year Options:

Botany, Chemistry, Accounting 53, English, Geology, History, Mathematics, Philosophy, Physics, Political Economy, Psychology, Zoology.

Of the senior courses taken in the second and third years four must be passed with at least second class standing.

Students in Commerce are strongly urged to secure, prior to graduation, a good working knowledge of Stenography and Typewriting.

The degree of Bachelor of Commerce, with honors in Political Economy, is awarded on the satisfactory completion of a program of studies, involving an additional year, arranged in consultation with the Department of Political Economy.

By agreement with the Institute of Chartered Accountants of Alberta graduates in Commerce who have credit in Commercial Law 41 and Commercial Law 51 and have obtained second class standing in Accounting 52 and Accounting 53 are eligible for exemption from two years' articles and the intermediate examinations of the Institute.

DETAILS OF COURSES

The University reserves the right to modify or withdraw for the session any of the courses here outlined.

For particulars regarding members of the staff, see page 11.

Students are reminded of the regulations (paragraph (c), page 53), regarding attendance requirements for laboratory courses and courses here designated by asterisks.

ACCOUNTING

***1. Bookkeeping and Business Practice. 3 hrs. lect., 2 hrs. lab.**

C. L. KING.

Lectures: Single and double entry bookkeeping principles; types and forms of books; the form, nature, and classification of accounts; instruction in

opening and closing books; preparation of trading and profit and loss statements and balance sheets; instruction in current business practice.

52. Corporation and Partnership Accounting. 3 hrs. lect., 1 hr. lab.

R. W. HAMILTON.

Lectures: Partnership and corporation accounts, including a general knowledge of capital, debentures, etc.; elementary cost accounts; systems; depreciation, depletion and obsolescence methods; the interpretation of accounting statements; income tax.

Prerequisite: Accounting 1.

53. Advanced Accounting. 3 hrs. lect., 1 hr. lab.

F. G. WINSPEAR.

Systems; cost accounting; auditing and investigations; bankruptcy; realization and liquidation accounts and statements of affairs; trustee and executorship accounts; municipal accounts; income tax.

Prerequisite: Accounting 52.

***55. Business Administration.** 3 hrs., sec. half.

F. G. WINSPEAR.

Business policy and organization as applied to finance, office organization and credits, personnel and production.

By agreement with the Institute of Chartered Accountants of Alberta, students offering Commercial Law 41 and 52 and obtaining second class standing in Accounting 52 and Accounting 53 are eligible for exemption from two years' articles and the intermediate examinations of the Institute.

BACTERIOLOGY

***1. Elementary Bacteriology.** 2 hrs. lect., 3 hrs. lab., first half.

R. M. SHAW AND J. A. ROMEYN.

Demonstrations in elementary bacteriology. Practical laboratory exercises, i.e., making of media, staining, etc.

60. Bacteriology. 3 hrs. lect., 3 hrs. lab.

R. M. SHAW AND J. A. ROMEYN.

A course in general bacteriology consisting of lectures, demonstrations and laboratory work.

The preparation of media, classification of forms and methods of culture and isolation will be studied.

The relationship of bacteria to every day life, industry, disease and public health, etc., will be considered.

Prerequisite: Chemistry 1 or 40 and Botany 1 or Zoology 1.

***61. Pathogenic Bacteriology.** 3 hrs. lect., 3 hrs. lab.

R. M. SHAW AND J. A. ROMEYN.

The relation of bacteria and the higher parasites to disease. The isolation and identification of bacteria pathogenic to men. A study of bacterial infections. A consideration of resistance and immunity.

Prerequisite: Bacteriology 60.

BIOCHEMISTRY**1 and 61. General Course.**

3 hrs. lect., 3 hrs. lab.

G. HUNTER, M. M. CANTOR AND J. TUBA.

Open to senior students in Arts and Science, Household Economics, Pharmacy, and to other students with the prerequisite Chemistry 42 and 58.

Physico-chemical. Chemistry of carbohydrates, fats, and proteins. Enzymes. Digestion. Respiration and relation of haemoglobin and acid-base equilibrium to. Metabolism in relation to nutrients, muscle, internal secretions, and minerals. Vitamins and nutrition. Text and reference books will be mentioned in the lectures.

Advanced Courses.**51. Pathological Chemistry.**

3 hrs. lab.

G. HUNTER AND M. M. CANTOR.

Open to some students in Arts and Science with prerequisite Biochemistry 61. The course is designed as an introduction to 52. Should be taken by those training as hospital technicians.

Urine and blood analysis and their clinical applications.

52. Pathological Chemistry.

1 hr. lect.

G. HUNTER AND M. M. CANTOR.

Open to some students in Arts and Science with prerequisite Biochemistry 61. Basal metabolism. Acid-base balance, acidosis and alkalosis. Water balance, oedema, and anhydraemia. Pregnancy. Diabetes. Nephritis. Intestinal obstruction. Fevers. Jaundice. Deficiency diseases.

Books and literature will be referred to in the lectures.

71. Plant Biochemistry.

1 hr. lect., 3 hrs. lab.

G. HUNTER AND J. TUBA.

Open to students with prerequisites Botany 1 and Biochemistry 61. Will be offered each alternate year (offered 1943-'44). Plant carbohydrates, fats, proteins, glucosides, acids, bases, phenols, tannins, "essential oils." Plant pigments; chlorophyll, carotinoids, flavones, anthocyanins. Enzymes, respiration and metabolism. Special reading will be prescribed for the course.

Students proceeding to the degree of M.A. or M.Sc. in Biochemistry should consult the Head of the Department with regard to requirements and research facilities.

BIOLOGY

A.—General Biology. 3 hrs. lect., 3 hrs. lab. alternate weeks, first half;
3 hrs. lect., second half.

E. H. MOSS AND W. ROWAN.

An outline of the principles underlying plant activity and structure. Interrelations of plants and animals. The web of life. Biology and human welfare. Plant life through the ages.

Introduction to the animal world; animal organization; development; inheritance; the course and products of evolution. Man's place in the universe. History of biology.

This course is available as a matriculation credit only. Students who do not require Biology A to complete matriculation and who intend to do advanced work in any branch of biology should register in Botany 1 and/or Zoology 1 in the first year.

1. **General Biology.** 3 hrs. lect., 3 hrs. lab. alternate weeks, first half;
3 hrs. lect., second half.

E. H. MOSS AND W. ROWAN.

The same general content as Biology A with additional assignments.

Biology 1 may be offered as a junior University course by students who have not taken Grade XII Biology, Biology A, Botany 1 or Zoology 1. Students who intend to do advanced work in any branch of biology should register in Botany 1 and/or Zoology 1 in the first year.

BOTANY

Junior Course.

- *1. **General Elementary Botany.** 3 hrs. lect., 3 hrs. lab.

E. H. MOSS, R. G. H. CORMACK AND J. H. WHYTE.

An introduction to the morphology and physiology of the cell. Elements of plant anatomy, physiology, classification and reproduction. General principles of heredity.

Senior Courses.

50. **Flowering Plants.** 3 hrs. lect., 3 hrs. lab.

E. H. MOSS.

Morphology, classification and ecology of flowering plants with special reference to those commonly found in Alberta. Identification of species. Taxonomic concepts. The conservation and utilization of natural plant resources. Prerequisite: Botany 1 or Biology 1.

51. **Plant Anatomy and Histology.** 3 hrs. lect., 3 hrs. lab.

R. G. H. CORMACK.

Critical studies on the structure and development of plant tissues and cells in the higher plants.

Microtechnique. Theories of staining. Microchemical tests.

Prerequisite: Botany 1.

(Offered each alternate year. Not offered 1943-44.)

52. **Plant Physiology.** 3 hrs. lect., 3 hrs. lab.

J. H. WHYTE.

Fundamental aspects of physiology with particular reference to the higher plants. The physiology of the cell in terms of physical and colloid chemistry. Prerequisites: Botany 1, Physics 1 or 40, Chemistry 40, 42.

(Not offered 1943-44.)

53. **Seedless Plants.** 3 hrs. lect., 3 hrs. lab.

E. H. MOSS.

Classification, morphology and reproduction of the Fungi, Algae, Bryophyta and lower Pteridophyta. Evolution of the lower groups of plants.

Prerequisite: Botany 1.

(Offered each alternate year. Not offered 1943-44.)

55. Lower Vascular Plants. 3 hrs. lect., 3 hrs. lab.

E. H. Moss.

Morphology of the Pteridophyta and Gymnospermae, including extinct groups. Evolution of modern plants as illustrated by the structure of fossil types from various geological horizons.

Prerequisites: Botany 1 and Geology 1.

(Offered each alternate year. Not offered 1943-44.)

Honor and Graduate Courses

103. Plant Geography and Ecology. 9 hrs. lect.-lab. and field work.

E. H. MOSS, J. H. WHYTE AND R. G. H. CORMACK.

Distribution of vegetation in time and space considered from a dynamical point of view.

Prerequisites: Botany 50, 51, 52.

104. Mycology. 6 hrs. lect.-lab.

E. H. Moss.

Classification, morphology and physiology of the fungi; diseases of plants.

Prerequisites: Botany 50, 51, 53.

105. Advanced Plant Physiology. 6 hrs. lect.-lab.

J. H. WHYTE.

Prerequisites: Botany 50, 51, 52.

106. Advanced Taxonomy. 6 hrs. lect.-lab.

E. H. Moss.

Systematic studies in selected groups of plants designed to illustrate taxonomic concepts and principles of classification. Experimental taxonomy.

Prerequisites: Botany 50 and 53.

Graduate Work.

Graduate students who have had the necessary training and wish to carry on research in some field of botany should consult the head of the department.

CHEMISTRY

***A.—Introductory Chemistry.** 3 hrs. lect., 3 hrs. lab.

J. L. MORRISON.

This course is for students who have not complete University Matriculation and wish to matriculate in Chemistry. No University credit will be given for this course.

Lectures: An introduction to the science and practice of Chemistry. Elementary theory along with a brief discussion on non-metals, metals, and carbon compounds.

Laboratory: Experiments related to the lecture material.

Text-book: Kharasch and MacKenzie, *Essentials of College Chemistry*.

***1. General Chemistry.**

3 hrs. lect., 3 hrs. lab.

J. L. MORRISON.

Lectures: An elementary survey of chemical science and industry, illustrated by the chemistry of metals, non-metals and carbon compounds.

Laboratory: Experiments related to the lecture material.

Text-book: Kharasch and MacKenzie, *Essentials of College Chemistry*. Laboratory manual to be selected.

***40. Inorganic Chemistry.**

3 hrs. lect., 3 hrs. lab., first half; 2 hrs. lect., 3 hrs. lab., sec. half.

O. J. WALKER AND N. E. PERKINS.

Lectures: Chemistry of the metals and their compounds. The principles of chemical analysis.

Laboratory: Qualitative inorganic analysis.

Text-books: Philbreck and Holmyard, *Theoretical and Inorganic Chemistry*; Yoe, *Chemical Principles*; Walton and Sorum, *Introduction to Qualitative Analysis*.

Prerequisite: Chem. 1 or complete Grade XII Chemistry.

***42. Organic Chemistry.**

3 hrs. lect., 3 hrs. lab.

R. B. SANDIN.

Lectures: An introduction to the aliphatic and the aromatic series.

Laboratory: The preparation of some organic compounds.

Text-books: Lucas, *Organic Chemistry*; for Hon. Chem., Whitmore, *Organic Chemistry*.

Laboratory Manual: Fisher, *Laboratory Manual of Organic Chemistry*.

Prerequisite: Chem. 1 or its equivalent.

***44. Inorganic Chemistry (For B.Sc., M.D. and Pharm. students only).**

3 hrs. lab.

O. J. WALKER AND W. A. LANG.

Introductory quantitative inorganic analysis.

Text-books: Yoe, *Chemical Principles*; Pierce and Haenisch, *Qualitative Analysis*.

Prerequisite: Chemistry 40.

***45. Inorganic Chemistry (For H.Ec. only).**

3 hrs. lect. first half.

O. J. WALKER.

Text-books: Philbreck and Holmyard, *Theoretical and Inorganic Chemistry*; Yoe, *Chemical Principles*.

54. Elementary Physical Chemistry.

3 hrs. lect., 3 hrs. lab.

J. L. MORRISON.

Lectures: Fundamental concepts of matter in relation to energy; thermochemistry, properties of gases, liquids and solids; solutions, equilibrium, phase rule, electrolytes, electromotive force, colloids.

Laboratory: Physico-chemical measurements.

Text-books: Gucker and Meldrum, *Physical Chemistry*; Findlay, *Practical*

Physical Chemistry; Hodgson and Lang, *Handbook of Chemistry and Physics. Laboratory Experiments.*

Prerequisite: Chem. 40 and Physics 40.

58. Quantitative Analysis. 2 hrs. lect., 6 hrs. lab.

O. J. WALKER AND S. G. DAVIS.

Lectures: Principles and methods of quantitative analysis.

Laboratory: Gravimetric, volumetric, colorimetric, electro, and gas analysis; analysis of ores, fuels, water and foods.

Text-book: Fales and Kenny, *Inorganic Quantitative Analysis.*

References: Treadwell & Hall, *Analytical Chemistry, Vol. II*; A.O.A.C. *Methods of Analysis*; Kolthoff and Sandell, *Quantitative Inorganic Analysis.*

Prerequisite: Chem. 40.

Honor and Graduate Courses.

102. Advanced Organic Chemistry. 3 hrs. lect., 6 hrs. lab.

R. B. SANDIN AND N. E. PERKINS.

Laboratory: Preparation of some aromatic compounds; quantitative organic analysis.

Text-books: Whitmore *Organic Chemistry*; Gilman, *Organic Chemistry.*

Text-book for Laboratory: Gatterman and Wieland, *Laboratory Methods of Organic Chemistry.*

Prerequisites: Chem. 40, 42 and 54.

103. Advanced Physical Chemistry. 3 hrs. lect., 6 hrs. lab.

E. H. BOOMER.

Lectures: Theoretical chemistry with special attention to the dynamical theory of matter and the laws of thermodynamics and their application to gases, liquids, and solids; the theory of solutions; reaction velocity, catalysis and photochemistry; thermochemistry, chemical equilibrium and the phase rule; atomic and molecular structure.

Text-book: Glasstone, *Text-book of Physical Chemistry.*

Laboratory: Physico-chemical measurements.

Text-book: Daniels, Mathews and Williams, *Experimental Physical Chemistry.*

Prerequisites: Chemistry 42, 54; Mathematics 55.

Co-requisite: Physics 46.

105. Advanced Quantitative Analysis. 2 hrs. lect., 6 hrs. lab., sec. half.

O. J. WALKER.

Lectures: Special methods of analysis not taken up in Chemistry 58.

Laboratory: Special analyses such as microanalysis; electroanalysis; water analysis; sodium and potassium determinations; iron and steel analysis; calorific value; analysis of alloys.

References—A.P.H.A., *Water Analysis*; Kolthoff and Sandell, *Quantitative Inorganic Analysis.*

Prerequisite: Chemistry 58.

Give alternate years. (Not given 1943-44.)

106. Advanced Inorganic Chemistry. 3 hrs. lect., 6 hrs. lab.

J. L. MORRISON.

Lectures: Modern theories of electronic structure of matter, applied particularly to chemical bonds.

Laboratory: The preparation and spectroscopic examination of some inorganic compounds.

References: Pauling, *Nature of the Chemical Bond*; Sidgwick, *Electronic Theory of Valency*; Emeleus and Anderson, *Modern Aspects of Inorganic Chemistry*.

Given in alternate years. (Not given in 1943-44.)

107. Colloid Chemistry and Surface Chemistry.

2 hrs. lect., 6 hrs. lab., first half.

E. H. BOOMER.

A course dealing with the theories of colloidal behaviour; the relation of colloid chemistry to natural processes and its application in industry.

Text-books: H. B. Weiser, *Colloids*; Holmes, *Laboratory Manual of Colloid Chemistry*.

Prerequisites: Chemistry 42, 54, Mathematics 40.

Given alternate years. (Given 1943-44.)

108. Electro-Chemistry.

2 hrs. lect., 6 hrs. lab., second half.

S. G. DAVIS.

Lectures: Electro-chemical theory; conductance; electrolysis; molten electrolytes; oxidation and reduction; electromotive force; cells; hydrogen ions; electro-thermics.

Laboratory: Electro-chemical measurements.

Text-book: Creighton and Kohler, *Electro Chemistry*.

Laboratory Manual—to be selected.

Prerequisites: Chemistry 54 and 58.

Given alternate years.

109. Qualitative Organic Analysis. 2 hrs. lect., 6 hrs. lab., first half.

R. B. SANDIN AND N. E. PERKINS.

A study of the characteristic reactions of the various groups of organic compounds and from these reactions to classify and identify a number of unknowns.

Text-books: Kamm, *Qualitative Organic Analysis*; Clarke, *A Handbook of Organic Analysis*; Mulliken, *A Method for the Identification of Pure Organic Compounds*; Shriner & Fuson, *Identification of Organic Compounds*.

Prerequisite: Chemistry 102.

110. Chemical Research.

Students in their fourth year of honors who have first class standing may after consultation with the department pursue a half course in investigational work under the direction of a member of the department. At least eight hours per week for half of the sessional term must be spent on this course. Arrangements for taking this course should be made the preceding term.

Graduate Work.

Students having the necessary training may pursue a course of study leading to the degree of M.Sc. Research work and related courses from this and other departments may be arranged in consultation with the department. Students desiring to register for such work should make arrangements with the department before the close of the preceding academic term.

Journal Club.

Attendance at the Journal Club, which meets once a week, is required of third and fourth year honor students and graduate students.

CLASSICS

In addition to the regular University courses, the Department of Classics will offer in 1943-44 a preliminary matriculation course to be called Latin A, available only to students who have been unable to obtain courses in Latin in their local High Schools to complete matriculation.

Junior Courses.***1. Beginners' Latin.****3 hrs.**

W. H. JOHNS.

Latin for Secondary Schools (Hamilton and Carlisle: Gage); *Roma* (Robinson and Hunter: Cambridge).

Sight translation and Principles of Language.

A course designed to enable the students entering with complete matriculation but without Latin to begin this language in the University. The course will not be credited towards a degree unless the students who elect it take successfully a second year in Latin. Students who take beginners' Latin will normally proceed to Latin 2.

2. Second Year Latin Authors and Prose Composition.*3 hrs.**

W. H. JOHNS.

A Latin Reader (Petrie: Oxford).

Sight translation.

Latin Prose Composition (Franklin and Bruce: Longmans).

4. Pre-medical Latin.**2 hrs.**

W. H. JOHNS.

The basic grammar of Latin and Greek with a study of the specific words which form the basis of the technical vocabulary of medicine, surgery and dentistry. This course is restricted to students in the first year of the course leading to the degree of D.D.S. and in the first year of the combined courses leading to the degrees B.Sc., M.D., and B.Sc., D.D.S.

The text-book will be announced at the beginning of the course.

40. Second Year Latin Authors and Prose Composition.*3 hrs.**

W. H. JOHNS.

A Book of Latin Prose (Neville et al.); *A Book of Latin Poetry* (Neville et al.); *Latin Prose Composition* (North and Hilliard).

Sight Translation and Principles of Language.

Senior Courses.

53. **Vergil, Martial, Juvenal, Tacitus.** 3 hrs.
(Not offered 1943-44.)
54. **Cicero, Letters; Horace, Odes; Terence, Adelphi.** 3 hrs.
(Not offered 1943-44.)
55. **Cicero, Pro Archia; Livy, Selections; Horace, Satires and Epistles; Quintilian, Book X.** 3 hrs.

W. H. JOHNS.

Cicero, *Pro Archia* (Hall: Cambridge); Livy, *Book XXI and Selections* (Egbert: Macmillan); Horace, *Satires and Epistles* (Morris: American); Quintilian, *Book X* (Peterson: Oxford).

Honor and Graduate Courses.

101. **Cicero, Rhetorical Writings.** 3 hrs.
(Not offered 1943-44.)
103. **Lucretius, De Rerum Natura.** 3 hrs.
(Not offered 1943-44.)
104. **Greek and Italic Dialects.** 3 hrs.
(Not offered 1943-44.)
105. **Virgil, Complete Works.** 3 hrs.
W. G. HARDY.
106. **Sanskrit.** 3 hrs.
(Not offered 1943-44.)
107. **Plautus, Catullus, Petronius, Apuleius.** 3 hrs.
(Not offered 1943-44.)
114. **Comparative Philology and Comparative Syntax.** 3 hrs.
(Not offered 1943-44.)

Greek

This language can be begun in university. Greek 1 has the status of a first year subject and is credited towards a degree, provided that the students who elect it, take successfully a second year of Greek in either Greek 2 or Greek 40. Greek 2 is a junior course, while Greek 40 counts as a senior subject. Students from Greek 1 pass on to either Greek 2 or Greek 40 on recommendation of the department.

In addition to Greek 1 two extra tutorial hours of instruction are offered by the department. Normally those students who take these extra tutorial hours in connection with Greek 1 will pass into Greek 40 in their second year, and this will be necessary in the case of prospective honor students.

Students entering the University with a knowledge of Greek estimated as equivalent to Senior Matriculation standing will normally take Greek 2 and pass on to a Greek 50 course in their second year.

Junior Courses.

- *1. Beginners' Greek.** 3 hrs.

W. H. JOHNS.

Beginner's Greek Book (Benner and Smyth: American Book Co.); *Colson's First Greek Reader* (Macmillan).

- *2. Second Year Greek Authors and Prose Composition.** 3 hrs.

G. MISENER.

A Greek Reader (Freeman and Lowe: Oxford); Euripides, *Alcestis* (Bayfield: Macmillan). Sight Translation. Review of Greek Forms. More difficult sentences for translation into Greek.

Greek Prose Composition (North and Hilliard: Rivington).

- *40. Second Year Greek Authors and Prose Composition.** 3 hrs.

G. MISENER.

Tales from Herodotus (Farnell: Macmillan); Sophocles, *Antigone* (Jebb: Cambridge). Sight Translation. Review of Greek Forms. More difficult sentences for translation into Greek.

Greek Prose Composition (North and Hilliard: Rivington); *Elementary Greek Grammar* (Thompson: Murray).

(This course receives senior credit.)

Senior Courses.

- 51. Lysias, Sophocles, Plato.** 3 hrs.
(Not offered 1943-44.)

- 52. Thucydides I; Aeschylus, Prometheus Vincetus; Aristophanes, Frogs.** 3 hrs.

W. G. HARDY.

Thucydides I (Marchant, Macmillan); Aeschylus, *Prometheus Vincetus* (Sikes and Wilson: Macmillan); Aristophanes, *Frogs* (Merry: Oxford).

- 53. Demosthenes, Philippics I and Olynthiacs; Euripides, Medea; Aristophanes, Birds.** 3 hrs.
(Not offered 1943-44.)

- 54. Thucydides VI and VII; Aeschylus, Agamemnon; Plato, Apology and Crito.**
(Not offered 1943-44.)

Honor and Graduate Courses.

- 101. Plato and Aristotle.** 3 hrs.
(Not offered 1943-44.)

- 102. Homer, Iliad.** 3 hrs.

G. MISENER.

- 103. Pindar, Odes (Selections).** 3 hrs.

G. MISENER.

(Not offered 1943-44.)

- 111. Advanced Greek Prose Composition.** 3 hrs.
Survey Courses in the Life and Thought of the Ancient World.

- 50. Classics in English (Greek).** 3 hrs.

W. G. HARDY.

Greek Life and Letters from Homer to Lucian.

A study of life and thought in the Greek world for the period indicated. This will be based (a) on the literary documents, (b) on the department's collection of slides illustrating Greek art, architecture and natural environment. While a knowledge of Greek is highly desirable, it is not a prerequisite, as the literary documents are dealt with in translation.

It is an open option for second and third year students in Arts and Science in the A group.

Required reading of Greek authors in translations (on reserve in the library and not to be purchased by the student): Homer, *Iliad*, 1, 6, 9, 18, 22; *Odyssey* 11; Hesiod, *Works and Days*; Pindar, *Olympians* 1, 2, 5, 11; *Pythians* 1, 4; Herodotus, *Book 2*, *Books 8-9*; Thucydides, *Books 1, 2*; Aeschylus, Sophocles, Euripides, Aristophanes—*selected plays*; Plato, Aristotle—*selections*; Demosthenes, *The Three Philippic Orations*; Plutarch, Lucian—*selections*; *Greek Anthology* (Mackail); *Greek Bucolic Poets* (Edmonds); Xenophon, *Oeconomicus* or *Memorabilia*.

Text-books (to be secured by the student): Livingstone, *The Greek Genius* (Oxford); Hamilton, *Greece, a Short History* (Oxford).

- 51. Classics in English (Latin).** 3 hrs.

W. G. HARDY.

Latin Literature from Ennius to Suetonius.

A study of life and thought in the Roman World for the period indicated. While a knowledge of Latin is highly desirable, it is not a prerequisite, as the literary documents are dealt with in translation.

This course forms the natural sequence to Classics in English 50, with which it is closely related. It is an open option for second and third year students in Arts and Science in the A group.

Latin Literature (Mackail: Scribners); *Roman Literature in Translation* (Howe and Harrer: Harper's).

- 52. History of the Ancient Near East and Greece with special reference to the Greek city state.** 3 hrs.

W. H. JOHNS.

A brief survey of the nature of the early civilization of the Near East with a careful study of the rise of the Hellenic world and its development to the time of Alexander. Special attention will be paid to the political organization of the City State in its evolution and operation, with associated studies in economics and sociology.

Texts: Trever's *History of Ancient Civilization*, Vol. I, or Robinson's *History of Greece* (Methuen).

Reference books: Cambridge Ancient History; Greenidge, *Handbook of Greek Constitutional History*; W. W. Fowler, *The City-state of the Greeks and Romans*; G. Glotz, *Ancient Greece at Work*, *The Greek City and its*

Institutions; Michell, *The Economics of Ancient Greece*; R. W. Livingstone, *The Legacy of Greece*; A. E. Zimmern, *The Greek Commonwealth*; Rostovtzeff, *History of the Ancient World, Vol. I, Social and Economic History of the Hellenistic World*.

(Not offered 1943-44.)

53. Roman History: The Roman Genius in the Mediterranean World.

3 hrs.

W. H. JOHNS.

A study of the development of the Roman Republic and its expansion from City-State to Empire. In this course particular attention will be given to the Roman methods of organization, law and government, and to the way in which they impressed their culture on the Mediterranean World and on Western Europe.

Texts: Trever, *The Roman World* (Harcourt, Brace) or W. S. Robinson, *A Short History of Rome* (Rivington's).

Reference books: Abbott, *Roman Political Institutions*; Heitland, *A Short History of the Roman Republic*; T. Rice Holmes, *The Roman Republic*; Botsford, *Roman Assemblies*; Frank, *A History of Rome, An Economic History of Rome, Roman Imperialism, An Economic Survey of the Roman Empire*; Greenidge, *Roman Public Life*; Fowler, *Social Life at Rome in the Age of Cicero*; *The Religious Experience of the Roman People*; Rostovtzeff, *Social and Economic History of the Roman Empire*; Bailey (editor), *The Legacy of Rome*.

54. History of Ancient Art.

3 hrs.

G. MISENER.

A history of the rise and progress of ancient art from the Cretan period through the Graeco-Roman age. An examination of the aims and the principles underlying ancient art. The course will be fully illustrated from the department's collection of slides and photographs. This course is an open option in Division B for all students in the second and third years of the Faculty of Arts and Science.

Fowler and Wheeler, *Handbook of Greek Archaeology* (American Book Co.); Strong, *Art in Ancient Rome* (Scribner).

55. Graeco-Roman Political Theory and Institutions.

3 hrs.

G. MISENER.

A study of the development of Greek and Roman political thought and its relation to changes in social and economic conditions and political institutions. Students will be expected to read translations of selected works of Plato, Aristotle, Cicero and other ancient writers on this subject.

(Not offered 1943-44.)

56. Early Civilization.

3 hrs.

W. G. HARDY AND F. OWEN.

The origin and development of human culture will be traced through the Eolithic, Palaeolithic, Mesolithic, Neolithic, Bronze and Iron Ages down to

the beginning of the historical period. Special attention will be given to Europe, the early civilizations of the Near East and Egypt.
(Not offered 1943-44.)

COMMERCIAL LAW

- 41. Commercial Law (Restricted to students in the School of Commerce).** 3 hrs.

An introduction to the study of commercial law, with special reference to the law relating to contracts; the law relating to companies, agency, partnerships, and other forms of commercial association. Selected statutes and readings. This course is a prerequisite to Commercial Law 51.
(Not offered 1943-44.)

- 51. Commercial Law (Restricted to students in the School of Commerce).** 3 hrs.

A more advanced course, consisting of a review of the law of contract; the law relating to commercial property, including patents and trade marks; the law relating to special commercial contracts, including negotiable instruments, banks and banking, contracts with carriers, insurance, hiring and service, apprenticeship, hours of work, guarantees, sale of goods, bulk sales, chattel mortgages, bills of sale; and the law relating to commercial remedies, including liens, powers of sale, distress, and insolvency. Selected statutes and readings.

EDUCATION

- 54. Philosophy of Education.** 3 hrs.

K. F. ARGUE.

Studies in the Philosophy of Education will be closely associated (1) with a study of the educational classics, and (2) with a survey of modern educational practices in various countries: European, American and Australian.
Prerequisite: Philosophy 51, 54 or 57.

- 56. Educational Psychology.** 3 hrs.

M. E. LAZERTE.

(a) Psychology of learning, (b) Psychology of school subjects, (c) Statistics applied to educational data.

Prerequisite: Phil. 2, Psych. 51 or Normal School Certificate.

ENGLISH

Junior Courses.

- *2. English Poetry and Prose: Chaucer to Tennyson.** 3 hrs.

R. K. GORDON.

College Survey of English Literature (Short Edition; Harcourt, Brace); Shakespeare, *Henry IV*, Part I.

- *4. A General Reading Course.** 3 hrs.

F. M. SALTER, C. R. TRACY AND MISS WINSPEAR.

For students in the schools of Household Economics and Commerce, and for students in the first year of the B.Sc., M.D. course and the B.Sc., D.D.S. course.

Chaucer, *Canterbury Tales* (World's Classics, Oxford); Shakespeare, *Twelfth Night*, *Othello*; Browning, *Poems* (Everyman's Library); Scott, *Redgauntlet* (Everyman's Library); Conrad, *Lord Jim* (Everyman's Library); *Modern Short Stories* (Everyman's Library); Hudson, *Far Away and Long Ago* (Everyman's Library).

Senior Courses.

English 2 or English 4 or an equivalent approved by the Department of English, is prerequisite to all senior courses in English literature.

52. A History of English Fiction.

3 hrs.

J. T. JONES.

Students are required to read the following works: Bunyan's *Pilgrim's Progress*; Defoe's *Robinson Crusoe*; Smollett's *Roderick Random*; Richardson's *Clarissa Harlowe*; Fielding's *Tom Jones*; Sterne's *Tristram Shandy*; Goldsmith's *Vicar of Wakefield*; Scott's *The Heart of Midlothian*; Jane Austen's *Pride and Prejudice*; Dickens' *David Copperfield*; Thackeray's *Vanity Fair*; Trollope's *Barchester Towers*; Charlotte Brontë's *Jane Eyre*; George Eliot's *Adam Bede*; Meredith's *The Egoist*; Hardy's *Tess of the D'Urbervilles*; Virginia Woolf's *Jacob's Room*; T. Larsen and W. L. Macdonald, *A Century of Short Stories* (Macmillan); and the selections in Turner, *Malory to Mrs. Behn* (Nelson); Cross, *The Development of the Novel* (Macmillan).

(Not given 1943-44.)

53. Shakespeare.

3 hrs.

F. M. SALTER.

Study of Shakespeare's development as a dramatist. At the end of the year, students will be examined in their knowledge of the following plays, not all of which will be discussed in detail in class: *The Comedy of Errors*, *A Midsummer-Night's Dream*, *Richard III*, *Romeo and Juliet*, *The Merchant of Venice*, *Much Ado About Nothing*, *As You Like It*, *Twelfth Night*, *Richard II*, *Henry IV, Part I*, *Henry IV, Part II*, *Henry V*, *Julius Caesar*, *Hamlet*, *Othello*, *Lear*, *Macbeth*, *Antony and Cleopatra*, *Cymbeline*, *The Winter's Tale*, *The Tempest*.

Text: Hardin Craig, *Shakespeare* (Scott, Foresman & Co.).

57. Poetry and Prose of the Romantic Period.

3 hrs.

R. K. GORDON.

Selections from Crabbe, Cowper, Burns, Blake, Burke, Wordsworth, Coleridge, Scott, Lamb, Hazlitt, De Quincey, Byron, Shelley, Keats.

English Poetry and Prose of the Romantic Movement, ed. Woods (Scott, Foresman).

59. Currents of Thought in Victorian Prose Literature.

3 hrs.

R. K. GORDON.

J. S. Mill, *Utilitarianism*, and *Liberty* (Everyman's Library); Carlyle, *Sartor Resartus*, *Heroes and Hero-Worship* (Everyman's Library); *Past and Present* (World's Classics); Newman, *Apologia* (Modern Reader's Series); *Idea of a University* (Selections, Cambridge University Press); Arnold, *Representative*

Essays, ed. Brown (Macmillan); Macaulay, *Speeches* (World's Classics); Ruskin, *Selections and Essays*, ed. Roe (Scribner's); Huxley, *Readings*, ed. Rinaker (Harcourt Brace); Butler, *Erewhon and Erewhon Revisited* (Everyman's Library).

(Not given 1943-44.)

60. Milton. 3 hrs.

C. R. TRACY.

The Student's Milton, Ed. Patterson (Crofts).

(Not given 1943-44.)

62. Chaucer. 3 hrs.

R. K. GORDON.

Lectures on English mediaeval life and literature. Special study of Chaucer's *Troilus and Criseyde*, and of the *Canterbury Tales*. Chaucer's *Complete Works*, ed. Robinson (Houghton Mifflin).

63. The Literature of the Eighteenth Century. 3 hrs.

C. R. TRACY.

A survey of the literature of the century, with special emphasis on the major classics.

Text-books: Pope, *Collected Poems* (Everyman's Library, Dent); Swift's *Satires and Personal Writings* (Oxford Standard Authors), *Gulliver's Travels*, ed. Case (Nelson); Johnson's *Lives of the Poets* (2 vols., World's Classics); Johnson and others, *Poems* (Muses' Library); Boswell's *Johnson* (Oxford); Burke's *Present Discontents, etc.* (World's Classics); *Eighteenth-Century Comedies and Sheridan's Plays* (World's Classics).

In addition to the above each student will be expected to read at least two novels of the period, one from each of the following lists: (a) Fielding's *Joseph Andrews*, Richardson's *Pamela*, Smollett's *Humphrey Clinker*, Sterne's *Sentimental Journey*; (b) Goldsmith's *Vicar of Wakefield*, Walpole's *Castle of Otranto*, Defoe's *Robinson Crusoe*, Burney's *Evelina*, Johnson's *Rasselas*.

(Not given 1943-44.)

64. Recent and Contemporary English Literature. 3 hrs.

MISS WINSPEAR.

Required texts: Sanders and Nelson, *The Chief Modern Poets of England and America* (Macmillan); *English and Irish Plays*, vol. 1 (Scribner's Contemporary Drama Series); Shaw, *Arms and the Man*, *Major Barbara* (Constable); Henry James, *The Turn of the Screw* and *The Aspern Papers* (Everyman's Library); Hardy, *The Mayor of Casterbridge* (Scholar's Library, Macmillan); Conrad, *Lord Jim* (Everyman's Library); Bennett, *Old Wives Tale* (Everyman's Library); Wells, *Tono Bungay* (Collins); Galsworthy, *The Man of Property* (Collins); Lawrence, *The White Peacock* (Everyman's Library); Virginia Woolf, *To the Lighthouse* (Everyman's Library); Strachey, *Eminent Victorians* (Phoenix Library (Chatto and Windus); Hudson, *Far Away and Long Ago* (Everyman's Library).

In addition to the above list, other reading will be assigned during the course. Those seeking credit for this course towards a degree must successfully complete another senior course in English.

65. Senior Course in English Composition. 3 hrs.

F. M. SALTER.

This course, which offers advanced training in composition, is intended for students who are fitting themselves to teach and for others who are interested in the study and practice of writing. Prose literature presenting contrasts in style will be studied and analysed.

66. Poetry of the Victorian Period. 3 hrs.

J. T. JONES.

Special emphasis will be placed upon the works of Tennyson, Browning, Arnold, D. G. Rossetti, William Morris, and Swinburne.

Poetry of the Victorian Period, ed. Woods (Scott, Foresman).

(Not given 1943-44.)

67. The Literature of the Seventeenth Century. 3 hrs.

C. R. TRACY.

A survey of the prose, poetry, and drama from Donne and Bacon to the death of Dryden, excluding the works of Shakespeare and the major works of Milton. Lectures, discussions, and written reports.

Texts: Coffin and Witherspoon, *A Book of Seventeenth-Century Prose* (Harcourt, Brace); Brinkley, *English Poetry of the Seventeenth Century* (Norton); Bunyan, *Pilgrim's Progress* (any edition); Dryden, *Poems* (Nelson).

Copies of the required plays will be available in the library.

Honor Courses.**104. Old English and History of the English Language. 3 hrs.**

J. T. JONES.

Moore and Knott, *Elements of Old English* (George Wahr, Ann Arbor); Wyatt, *An Anglo-Saxon Reader* (Cambridge University Press).

110. Chaucer. 3 hrs.

R. K. GORDON.

The same as English 62, with the addition of *The Book of the Duchesse*, *The Hous of Fame*, and *The Legend of Good Women*.

109. Conference Course.

Special work arranged for Senior Honors students.

ENTOMOLOGY**61. General Entomology. 3 hrs. lect., 3 hrs. lab.**

J. H. BROWN.

Structure of insects, their habits and interrelationships; introduction to classification and recognition of common species; insects of major importance to agriculture and to human health.

Text-book: Folsom and Wardle, *Entomology with reference to its Ecological Aspects*.

Reference books: Comstock, *An Introduction to Entomology*; Imms, *Text-book of Entomology*.

62. Taxonomy and Technique. 6 hrs. lect.-lab.

E. H. STRICKLAND.

Classification of insects; methods of studying life histories; breeding, mounting and preserving insects.

(Not offered 1943-44.)

Text-book: Comstock, *An Introduction to Entomology*.

Prerequisite: Entomology 61 or Entomology 53.

63. Advanced Taxonomy. 6 hrs. lect.-lab.

E. H. STRICKLAND.

Classification and biology of, and literature upon, one or more of the major orders. Intending students must have prepared a general collection which shall include at least fifty species in each order that they select for special study.

Prerequisite: Entomology 62.

(Not offered 1943-44.)

64. Advanced Morphology and Physiology. 6 hrs. lect.-lab.

J. H. BROWN.

A detailed study of the comparative anatomy, histology and physiology of insects.

Prerequisite: Entomology 61 or Entomology 53.

101. Taxonomy for Graduate Students. 6 hrs. lab.

E. H. STRICKLAND.

A continuation of studies begun in Entomology 63. Includes the preparation of synoptic tables, descriptions and illustrations of species, study of available literature upon the biology of all species in certain groups and the preparation of at least one systematic article for publication.

(Not given 1942-43.)

FRENCH

See under Modern Languages, page 115.

GENERAL LITERATURE AND CULTURE

Instructors selected from the Literary Departments.

***51. Old and New Testament Literature.** 3 hrs.

A. D. MILLER.

A study of the historical background, authorship, sources, literary qualities, and general teaching of the various books and groups of books in the Old Testament. A sketch of Jewish literature subsequent to the Old Testament canon; the Jewish and Hellenistic environment; the occasion, authorship and content of the various books of the New Testament; the growth of the canon; the history of the text.

NOTE.—Pending the appointment of a Professor of New Testament at St. Stephen's College, this course will be in Old Testament Literature only.

50 and 51. Classics in English.

See Department of Classics, page 98.

GENETICS**51. Genetics.**

3 hrs. lect., 3 hrs. lab.

J. R. FRYER.

This course is open to senior and graduate students in the Faculty of Arts and Science, in the Faculty of Agriculture and in the College of Education.

The course is designed to give a survey of the field of Genetics and suggested application, with special reference to the basis of heredity, sex-linked inheritance, quantitative inheritance, mutation, chromosomal aberrations, polyploidy, hybridization, acquired characters and inheritance, bearing of genetic theories on organic evolution, on plant and animal diseases and improvement and on human inheritance and Eugenics.

Prerequisites: one of Botany 1 or Zoology 1 or Entomology 61 and one of Mathematics 42 or Mathematics 44 or equivalent courses.

GEOLOGY**Junior Course.*****1. General Geology (Arts and Science).**

3 hrs. lect., 2 hrs. lab.

P. S. WARREN.

Processes of destruction and reconstruction; interpretation of physiographical features with map study; stratigraphic column with index fossils from each period; common minerals and rocks.

Text-book: Longwell, Knopf, Flint, Schuchert, Dunbar, *Outlines of Geology*.

Senior Courses.**51. Mineralogy (Arts and Science).**

2 hrs. lect., 4 hrs. lab.

R. L. RUTHERFORD.

Principles of crystallography; physical and chemical properties of minerals; blow-pipe analysis.

Text-books: Dana's *Text-book of Mineralogy* (4th ed.), W. E. Ford; Lewis and Hawkins, *Determinative Mineralogy* (4th ed.).

53. Palaeontology.

3 hrs. lect., 3 hrs. lab.

P. S. WARREN.

Principles of classification; comparison of fossil with modern forms; classification and study of fossil invertebrates, vertebrates and plants; determination of type material.

Reference books: Zittel, *Text-book of Palaeontology*; Twenhofel & Shrock, *Invertebrate Palaeontology*.

Prerequisite: Geology 1.

54. Petrology.

3 hrs. lect., 3 hrs. lab.

R. L. RUTHERFORD.

Introduction to petrography; optical properties of common rock-forming minerals; classification and genesis of sedimentary, igneous and metamorphic rocks; examination of rock sections.

Text-books: Winchell, *Elements of Optical Mineralogy, Part I*; Johannsen, *Essentials for the Microscopical Determination of Rock-Forming Minerals and Rocks*; Tyrell, *Principles of Petrology*, or Grout, *Petrography and Petrology*.

Prerequisite: Geology 51 or 52.

55. Stratigraphy. 3 hrs. lect., 3 hrs. lab.

P. S. WARREN.

Principles of stratigraphy; sedimentation; interpretation of geological maps; structure in stratified rocks; historical geology; index fossils.

Reference: Twenhofel, *Treatise on Sedimentation*; Pirsson and Schuchert, *Text-book of Geology, Part II*; Geological Survey Reports, Journals, etc.

Prerequisite: Geology 1 or 53.

58. Mineral Deposits (Arts and Science). 3 hrs. lect., 3 hrs. lab.

J. A. ALLAN.

Classification, mode of occurrence and geological relations of various types of mineral deposits, including petroleum, natural gas and coal.

Text-books: Ries, *Economic Geology*, or Bateman, *Economic Mineral Deposits*; or Lindgren, *Mineral Deposits*; Emmons, *Geology of Petroleum*.

Prerequisite: Geol. 51.

Honor and Graduate Courses.

59. Geological Mapping. 3 hrs.

J. A. ALLAN.

Knowledge and application of instruments used in geological surveys, including field practice and compilation of field notes. Interpretation and application of aerial photographs.

Reference books: Dake and Brown, *Interpretation of Topographic and Geologic Maps*; Greenly and Williams, *Methods in Geological Surveying*. Other references on mapping and photogrammetry will be supplied during the course.

101. Structural Geology. 5 hrs.

J. A. ALLAN.

Reference books: Leith, *Structural Geology*; Nevin, *Principles of Structural Geology*; Willis, *Geologic Structures*.

Advanced courses in petrology (102), stratigraphy (103), and mineral deposits (104), may be arranged on consultation with the head of the department.

GERMAN

See under Modern Languages, page 117.

GREEK

See under Classics, page 96.

HISTORY

For courses in Ancient History, see Department of Classics.

No text-books are prescribed in History. Some of the more important books are listed after the description of each course for the guidance of students. Other books of reference will be assigned during the courses.

Junior Courses.***2. British History.**

3 hrs.

M. H. LONG.

The history of the British Commonwealth.

Books: Trevelyan, *History of England*; Williamson, *Short History of British Expansion*; Spender, *Great Britain, Empire and Commonwealth*, and books of reference on special subjects to be assigned during the course.

***4. European History.**

3 hrs.

R. W. COLLINS.

Civilization of the Middle Ages.

Books: Collins, *History of Medieval Civilization in Europe*; Thatcher and McNeal, *Source Book of Mediaeval History*; Lot, *The End of the Ancient World*; Boissonnade, *Life and Work in Mediaeval Europe*; Taylor, *Classical Heritage of the Middle Ages*; Crump and Jacob, *Legacy of the Middle Ages*; Stephenson, *Mediaeval Feudalism*; Haskins, *The Rise of Universities; Renaissance of the Twelfth Century*; Coulton, *The Mediaeval Village*; Funck-Brentano, *The Middle Ages*; Salzman, *English Life in the Middle Ages*; Pirenne, *Mediaeval Cities*; Petit-Dutaillis, *The Feudal Monarchy in France and England*.

Senior Courses.**51. Social and Economic History.**

3 hrs.

R. W. COLLINS.

A study of the social and economic development of Europe to the middle of the eighteenth century.

(Not offered in 1943-44.)

54. European History.

3 hrs.

R. W. COLLINS.

From the Renaissance to the end of the Wars of Religion.

Books: Lucas, *The Renaissance and the Reformation*; Symonds, *Renaissance in Italy, Vol. I*; Preserved Smith, *Erasmus; History of Modern Culture, Vol. I*; McGiffert, *Luther; Protestant Thought before Kant*; MacKinnon, *Calvin and the Reformation*; Brandi, *Emperor Charles V*; Tawney, *Religion and the Rise of Capitalism*; Ehrenberg, *Capitalism and Finance in the Age of the Renaissance*; Davies, *The Golden Century of Spain*; Geyl, *The Revolt of the Netherlands*; Batiffol, *Century of the Renaissance in France*; *Cambridge Modern History, Vols. I, II, III*.

55. Social and Economic History.

3 hrs.

R. W. COLLINS.

A study of the social and economic development of Europe from the middle of the eighteenth century to the present day.

Books: Clough and Cole, *Economic History of Europe*; Day, *Economic Development in Europe*; Sée, *Modern Capitalism*; Lipson, *The Age of Mercantilism*; Mantoux, *The Industrial Revolution in the Eighteenth Century*; Clapham, *Economic Development of France and Germany, 1814-1914*; *Economic History of Modern Britain*; Dawson, *The Evolution of Modern*

Germany; Lichtenberger, *The Third Reich*; Webb, *History of Trade Unionism*; Soviet Communism; Gide and Rist, *History of Economic Doctrines*; Beer, *The Life and Teaching of Karl Marx*; *History of British Socialism*; Hodgson, *Slump and Recovery, 1929-1937*; Guillebaud, *Economic Recovery of Germany*.

56. European History.

3 hrs.

G. M. SMITH.

From the beginning of the French Revolution to 1871.

Books: Aulard, Madelin, Mathiez, *French Revolution*; Fisher, *History of Europe, Vols. II and III*; Napoleon; Bonapartism; Fournier, *Napoleon*; Barthou, *Mirabeau*; Thompson, *Robespierre*; Madelin or Wendel, *Danton*; Woodward, *French Revolutions*; Grant, and Temperley, *Europe in the Nineteenth Century*; Lipson, *Europe in the Nineteenth and Twentieth Centuries*; Croce, *History of Europe in the 19th Century*; Phillips, *The Confederation of Europe*; Herman, *Metternich*; King, *History of Italian Unity*; Robertson, *Bismarck*; Dawson, *The German Empire*; Bourgeois, *Modern France*; Valentin, 1848, *Charters in German History*.

(Not offered in 1943-44.)

57. English Constitutional History.

3 hrs.

R. W. COLLINS AND M. H. LONG.

Books: Joliffe, *The Constitutional History of Mediaeval England*; Stephenson and Marcham, *Sources of English Constitutional History*; Pasquet, *Origins of House of Commons*; Riess, *English Electoral Law in the Middle Ages*; Tanner, *Tudor Constitutional Documents*, *English Constitutional Conflicts of the Seventeenth Century*; Holdsworth, *History of English Law*; McIlwain, *The High Court of Parliament*; Dicey, *Law of the Constitution*; Muir, *How Britain is Governed*; Keith, *British Constitutional Law*; Keir and Lawson, *Cases in Constitutional Law*; Jennings, *The Law and the Constitution*, *The British Constitution, Cabinet Government*; Keir, *Constitutional History of Modern Britain, 1485-1937*.

58. Canadian History.

3 hrs.

M. H. LONG.

The social and political history of Canada with the emphasis on the period from Lord Durham's Report to the present day.

Books: Wittke, *History of Canada*; Kennedy, *Constitution of Canada*; *Documents of the Canadian Constitution*; Report on Dominion-Provincial Relations, Book I, Canada 1867-1939; Siegfried, *Canada*; *The Race Problem in Canada*; MacKay and Rogers, *Canada Looks Abroad*; Keenleyside, *Canada and the United States*; Long, *New France*; Creighton, *Commercial Empire of the St. Lawrence*; Durham, *A Report on Canada*; Morison, *Earl of Elgin*; Whitelaw, *The Maritimes and Canada before Confederation*; Trotter, *Confederation*; Pope, *Sir John A. Macdonald*; Lives of Laurier by Skelton, Dafoe, and Willison; Dafoe, *Sifton*; M. Q. Innis, *Economic History of Canada*; Stanley, *The Birth of Western Canada*; Howay, *History of British Columbia*; England, *The Colonization of Western Canada*.

60. American History.

3 hrs.

M. H. LONG.

The history of the United States with a brief introductory survey of the colonial period.

Books: Fox, *Atlas of American History*; Jerneagan, *The American Colonies*; Morison and Commager, *Growth of the American Republic*; Turner, *The Frontier in American History*; Paxson, *History of the American Frontier*; Schlesinger, *New Viewpoints in American History*; Schuyler, *Constitution of the United States*; Biographies of Washington, Hamilton, John Adams, Jefferson, Andrew Jackson, Lincoln, Cleveland, Roosevelt, Wilson; Adams, *America's Tragedy*; Buck, *The Grainger Movement*; Hicks, *The Populist Revolt*; Nevins, *The Emergence of Modern America*; Moody, *The Railroad Builders*; Hendrick, *The Age of Big Business*; Schlesinger, *The Rise of the City*; Commager, *Documents of American History, 1492-1934*; Flugel and Faulkner, *Readings in the Social and Economic History of the United States*.

65. International Affairs Since 1871.

3 hrs.

G. M. SMITH.

Books: Spender, *Fifty Years of Europe*; Seton-Watson, *Britain in Europe*; *British Documents on the Origins of the War, 1898-1914*; Brandenburg, *From Bismarck to the World War*; Lady G. Cecil, *Salisbury*; Lord Newton, *Lansdowne*; Nicholson, *Lord Carnock*; *Peacemaking*; works on origins of the war of 1914-18 by Fay, Bernadotte, Schmidt, Renouvin; Trevelyan, *Grey of Falldon*; Grey of Falldon *Twenty-five Years*; Cruttwell, *History of the Great War*; ed. Toynbee, *Survey of International Affairs*; Zimmern, *The League of Nations and the Rule of Law*; Lord Robert Cecil, *A Great Experiment*; Hudson, *Far East in World Politics*; Gathorne-Hardy, *Short History of International Affairs, 1920-1938*; King-Hall, *Our Own Times*; Carr, *International Relations Since the Peace Treaties*; Seton-Watson, *Britain and the Dictators*; Wolfers, *Britain and France between Two Wars*; Schwarzenberger, *Power Politics*.

67. British History.

3 hrs.

L. G. THOMAS.

The history of England, 1485-1714.

Books: Fisher, *England, 1485-1547*; Pollard, *England, 1547-1603*; Davies, *The Early Stuarts*; Clark, *The Later Stuarts*; Neale, *Queen Elizabeth*; Read, *Walsingham*; Corbett, *Drake*; Brett, *Pym*; Trevor-Roper, *Laud*; Firth, *Cromwell*; Bryant, *Pepys, Charles II*; Churchill, *Marlborough*; selections from More, *Utopia*; Bacon, *Henry VII*; Hooker, *Laws of ecclesiastical polity*; Hakluyt, *Principal, navigations, voyages and discoveries*; Clarendon, *History of the rebellion*; Harington, *Oceana*; Hobbes, *Leviathan*; Locke, *Treatises of Government*; Pepys, *Diary*; Evelyn, *Diary*; Burnet, *History of his own times*; selections from such classical historians as Hume, Lingard, Macaulay and Ranke.

(Not offered in 1943-44.)

Honor and Graduate Courses.**106. Conference Courses.**

To meet the requirements of students in Honors History reading for the final comprehensive examination and of other Honors and Graduate Students.

HOUSEHOLD ECONOMICS**Junior Courses.*****1. Sewing.**

4 hrs. sec. half.

M. E. M. RICHARDS.

Instruction in hand and machine sewing as applied to the making of simple garments.

***2. Home Nursing.**

3 hrs. lect., 3 hrs. lab. first half.

G. L. DUGGAN.

Home care of the sick; emergencies; simple bandages.

Textiles.

M. E. M. RICHARDS.

The composition, physical properties and manufacture of fabrics; influence of these on selection and methods of cleansing.

***3. Household Management.**

3 hrs. lect., 3 hrs. lab. sec. half.

G. L. DUGGAN.

Materials found in the home; principles involved in their care; the house, its equipment and furnishing. Labor-saving devices.

Foods.

An introduction to the study of foods and cookery.

***10. Textiles, Clothing, Household Management and Foods.**

3 hrs. lect., 3 hrs. lab.

(For students in Education.)

***31. Experimental Cookery.**

2 hrs. lect., 4 hrs. lab.

H. MCINTYRE.

An experimental study of foods.

***32. Textiles.**

2 hrs. lect., 2 hrs. lab. first half.

Fibres: Classification; physical and chemical structure; physical and chemical tests for fibres.

Fabrics; Manufacture; adulterations; uses in the household; laundering of fabrics.

***33. Household Management.**

2 hrs. lect., 2 hrs. lab. sec. half.

G. L. DUGGAN.

Materials found in the home; principles involved in their care; the house, its equipment and furnishings; labor-saving devices.

***36. Foods and Cookery.**

60 hrs.

G. L. DUGGAN AND M. E. M. RICHARDS.

An elementary course for nurses. The composition and nutritive value of foods. Laboratory practice in food preparation.

Senior Courses.**51. Foods.**

3 hrs. lect., 3 hrs. lab.

H. MCINTYRE AND G. L. DUGGAN.

A study of foods; laboratory practice in food preparation.

Home Nursing.

The care of the sick in the home.

Household Management.

The care of the house, furnishings and equipment; labor-saving devices.

52. Economics of the Household.

3 hrs. lect., 3 hrs. lab.

G. L. DUGGAN.

Household production; the home as a business; the income and its expenditure; budgets; standards of living; consumer education.

Foods.

H. MCINTYRE AND G. L. DUGGAN.

Nutritive value and cost of foods; food for the family group; planning and preparation of meals; special diets.

Prerequisite: Household Economics 10 or 51.

***55. Foods.**

3 hrs. lect., 8 hrs. lab.

H. MCINTYRE.

Lectures.

A study of foods; their composition and value in the diet. Physical and chemical changes in cooking.

Laboratory work: An experimental study of foods; the principles of cookery.

56. Economics of the Household.

2 hrs. lect.

G. L. DUGGAN.

Household production; the home as a business; the income and its expenditure; budgets; standards of living; consumer education.

57. Dietetics.

3 hrs. lect., 3 hrs. lab.

M. PATRICK.

The principles of nutrition applied to the feeding of individuals and the family group under normal conditions. Diets for special cases.

58. Food and Diet for the Sick.

1 hr. lect., 3 hrs. lab. sec. half.

M. PATRICK.

An application of the principles of cookery to dishes for the sick and convalescent.

59. Methods.

3 hrs. lect., 3 hrs. lab. first half

M. PATRICK AND M. E. M. RICHARDS.

The problem of teaching Household Economics; equipment, arrangement of courses; methods of presentation of subject matter; demonstrations.

62. Nutrition.

2 hrs. lect., 3 hrs. lab.

M. PATRICK.

For senior nurses in the degree course. A course in nutrition, with special emphasis on food budgets and low cost diets.

HYGIENE***51. Elementary Hygiene.**

1 hr. first half.

A. C. MCGUGAN.

The principles of sanitary science, etc.

LATIN

See under Classics, page 95.

MATHEMATICS**Matriculation Course.*****A. Elementary Mathematics.**

3 hrs. lect., 3 hrs. lab.

.....
To be appointed.

The algebra, analytical geometry and trigonometry of Grade XII, High Schools of Alberta.

Text-books: Durell and Wright, *Senior Algebra*; A. J. Cook, *Trigonometry and Analytical Geometry*.

Prerequisites: Algebra 1 and Geometry 1 of the High Schools of Alberta.

Junior and Senior Courses.**†*40. Calculus and Plane Analytical Geometry.** 3 hrs. lect., 2 hrs. lab.

A. J. COOK.

Functions of one variable; plane curves; the processes of differentiation and integration; applications.

Text-book: Miller, *Calculus*.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

***41. Elementary Mechanics.** 3 hrs. lect., 2 hrs. lab., sec. half

J. W. CAMPBELL AND E. S. KEEPING.

The fundamental principles of elementary mechanics involved in the kinematics and dynamics of particles, and the plane motions of rigid bodies.

Text-book: Campbell, *An Introduction to Mechanics*, and *Numerical Tables*.

Co-requisite: Mathematics 40 or 21.

†*42. Statistics. 3 hrs. lect., 3 hrs. lab.

E. W. SHELDON.

(a) Graphs, tables, functions. (b) Frequency distributions, averages, dispersion, trend lines. (c) Moments, normal law, regression, simple correlation, multiple correlation, applications to data in various fields.

Text-book: Yule and Kendall.

Reference books: Thurstone, Mills, Camp.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

Note Mathematics 52 below.

43. Theory of Finance.

3 hrs.

J. W. CAMPBELL.

Interest, annuities, amortization, valuation of bonds, sinking funds and depreciation, theory of probability, life assurance.

Text-book: K. P. Williams, *The Mathematical Theory of Finance*.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

†*44. Biometry.

3 hrs.

A. J. COOK.

Graphs, tables and functions; one and two variable frequency distributions and their properties; the normal law; probability; sampling.

Text-book: Yule and Kendall, *Statistics*.

***44a. Biometry.**

3 hrs. sec. half.

E. W. SHELDON.

The more elementary topics of Mathematics 44, with applications to medical data.

Required of second year students in the combined course for the B.Sc. and M.D. degrees.

***51. Geometry.**

3 hrs.

A. J. COOK.

Principles of geometry. The geometry of the plane in its metric and projective aspects, with reference to straight line configurations and the conics; some study of three-space. Methods of approach both algebraic and non-algebraic.

Text-book: Graustein, *Introduction to Higher Geometry* (Macmillan).

(Not offered in 1943-44.)

52. Statistics.

3 hrs. lect., 3 hrs. lab.

E. W. SHELDON.

As 42, with additional topics; for honors and graduate students.

53. Astronomy.

3 hrs.

J. W. CAMPBELL.

History of early astronomy, study of the earth; astronomical coordinates, time. The solar system, the stars, structure of the universe, origin of the solar system. Practical work; study of the constellations; discussion of articles in current journals.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

***55. Calculus and Space Geometry.**

3 hrs.

A. J. COOK.

Functions of two or more variables; space loci; determinants and matrices; nomograms; the processes of differentiation and integration; series; differential equations; complex numbers; vectors.

Text-book; Miller, *Calculus*; Eisenhart, *Co-ordinate Geometry*.

Prerequisite: Mathematics 40 or 21.

†Mathematics students planning to enter the teaching profession in secondary schools should consult the head of the department as early as possible regarding the choice of their courses.

***56. Mechanics.** 2 hrs. lect., 2 hrs. lab. first half.

J. W. CAMPBELL.

Text-book: Campbell, *An Introduction to Mechanics*, and *Numerical Tables*.
In Faculty of Arts and Science: 3 hrs. lect., 2 hrs. lab. first half, additional topics; a senior option.

Prerequisites: Mathematics 40 or 21, and 41 or 22.

57. Advanced Calculus. 3 hrs.

E. S. KEEPING.

Ordinary differential equations, with applications to mechanics, physics and chemistry. Some partial differential equations of physics. Convergence and uniform convergence of series. Gamma and Bessel functions. Legendre polynomials. Elliptic integrals. Fourier series and harmonic analysis. Vector analysis. Line and surface integrals. Contour integration.

Text-book: Reddick and Miller, *Advanced Mathematics for Engineers*.

Prerequisite: Mathematics 25 or 55.

61. Foundations of Mathematics. 3 hrs.

E. W. SHELDON AND A. J. COOK.

Such fundamental notions as space, number, function, infinity, limit, definition, assumption. Mathematics and logic, mathematics and the sciences, cultural values, mathematics in the secondary school curriculum. The texts of J. W. Young, J. W. A. Young, Heath, Whitehead, Hardy, A. J. Cook, Durrell and Wright.

Prerequisite: Mathematics 40.

62. Probability. 2 hrs. lect., 3 hrs. lab. sec. half.

E. S. KEEPING.

Theory of probability. Treatment of statistical material. Curve fitting, etc. Theory of sampling. Theory of errors and the method of least squares.

Prerequisites: Mathematics 42 and 55.

Honor and Graduate Courses.

For the current session, honors courses will be selected from the following list:

101. Foundations of Mathematics. 3 hrs.

E. W. SHELDON AND A. J. COOK.

As 61, with additional topics; for honors and graduate students.

Required in third year honors.

102. Theory of Functions. 2 hrs.

E. S. KEEPING.

103. Advanced Geometry. 2 hrs.

A. J. COOK.

104. Advanced Mechanics. 2 hrs.

J. W. CAMPBELL.

105. Vector Calculus, Tensor Calculus. 2 hrs.

E. S. KEEPING.

106. **Selected Topics: Algebra, Probability, History, etc.** 2 hrs.
107. **Conference Course.**
To be arranged in consultation with the department.

MODERN LANGUAGES

In addition to the regular University courses, the Department of Modern Languages will offer in 1943-44 preliminary matriculation courses to be called French A and German A, available only to students who have been unable to obtain courses in French or German in their local High Schools to complete matriculation.

French

Junior Courses.

*1. First Year.

M. H. FAUNT.

A survey of French grammar: Eckerman-Chatrian, *Le Conscriit*, and Labiche, *Le Voyage de Monsieur Perrichon*.

A course designed to enable students entering with complete matriculation but without French to begin this language in the University. University credit is not given for French 1 until a second course in French has been satisfactorily completed in the second year. Normally, students will proceed from French 1 to French 2, but students of exceptional merit may proceed to French 40.

*2. First Year.

3 hrs.

E. SONET, A. CRU, AND M. H. FAUNT.

Authors.

Hugo, *Les Misérables*; Alphonse Daudet, *Lettres de mon Moulin*; De Lorde et Marséle, *Napoléonette*, an easy play to be used as a base for conversation.

Composition and Conversation.

Text-book: Vreeland and Koren, *French Composition* (Holt).

Oral work and dictation based on the authors read.

Prerequisite: Grade XII French.

Senior Courses.

40. Intermediate Course.

3 hrs.

M. H. FAUNT.

Mérimée, *Carmen* (Heath); Hastings, *French Prose and Poetry, 1850-1900* (Ginn); Manley, *Eight French Stories* (Allyn & Bacon); About, *Le Roi des Montagnes* (Heath).

Composition and oral work will be based on the authors read.

NOTE.—The Prerequisite for this course is a mark of not less than 75% in French 1.

51. Eighteenth Century.

3 hrs.

E. SONET.

Les dernières années du siècle de Louis XIV—Vue générale du XVIII^e siècle—Événements politiques et sociaux—Le théâtre au XVIII^e siècle—Mon-

tesquieu—Voltaire, l'incarnation de l'esprit du siècle—Diderot et autres Encyclopédistes—Rousseau et l'aurore du romantisme—Beaumarchais et l'approche de la Révolution française.

Ouvrages devant être lus et étudiés attentivement:

1. Marivaux: Le jeu de l'Amour et du Hasard.
2. Havens: Selections from Voltaire.
3. Rousseau: L'Emile.
4. Beaumarchais: Le Barbier de Séville.

Prerequisite: A minimum mark of 75 in French 2.

(Not offered in 1943-44.)

57. Romantic Period.

3 hrs.

E. SONET.

Les sources françaises et étrangères du romantisme français.

Chateaubriand: *Atala*. Mme. de Staël: *De l'Allemagne*. Poètes lyriques: Lamartine, Vigny, Musset, Hugo, etc. Berthon: *Nine French Poets*. Drame et Comédies: Hernani, Chatterton, 3 comédies de Musset. Romans: Quatre-vingt-treize, *Chronique de Charles IX*, *La Mare au Diable*. Histoire: Michelet, *Extraits de l'Histoire de France*.

Prerequisite: a minimum mark of 75 in French 2.

60. (a) Realism and Naturalism.

3 hrs.

A. CRU.

Definition and history of the two movements. Study of the development of the novel in the XIXth century. Mérimée, Stendhal, Balzac, Flaubert, Daudet, Zola. Realism in the theatre; Augier and Dumas. Taine and Renan; A study of French criticism and philosophy. The Parnassian and Symbolist schools of poetry with special reference to Gautier, Baudelaire, Leconte de Lisle, José-Maria de Hérédia, Mallarmé, Verlaine and Rimbaud.

(b) Composition and Oral Work.

(Not offered in 1943-44.)

64. The XVIIth Century.

3 hrs.

A. CRU.

The reform of Malherbe; The foundation of the French Academy; The Salons and Mundane literature; The novel in the 17th Century; Descartes, Pascal and French philosophy; Religious literature: Bossuet; The classical theatre; Corneille, Racine, Molière; La Fontaine; The political and social ideas in the Classical period; La Bruyère (extracts).

Honor and Graduate Courses.

101. French Medieval Literature and Philology.

3 hrs.

E. J. H. GREENE.

Introduction to the study of Romance Philology with detailed explanations of the first documents written in France in romanic. Les Chansons de Geste—Les Fabliaux—Les Troubadours—The Chronicles: Joinville, Froissart. Origin and evolution of the theatre in France—François Villon.
(Not offered in 1943-44.)

102A, 102B. Advanced Composition in French.**1 hr.**

E. SONET.

Text-books: Spiers, *Practical French Grammar*, *Rapid French Exercises*.

These two courses alternate and are required of all honor students.

107. La Renaissance.**3 hrs.**

E. SONET.

Vue générale du XVI^e siècle—L'humanisme italien. L'humanisme français. Clément Marot. Marguerite de Navarre. L'oeuvre de François Rabelais. Calvin. La pléiade et ses principaux représentants: Ronsard, Du Bellay, etc. Les mémoires—Satire sociale: Agrippa d'Aubigné, la Satire Ménippée. Les Essais de Montaigne. Anthologie des écrivains français du XVI^e siècle (Cons).

111. Conference Course.

Graduate courses arranged to suit the needs of the individual students.

German

This language can be begun at the University. German 1 has the status of a first year subject and is credited towards a degree, provided that the students who elect it, take successfully a second year of German in either German 2 or German 40. German 2 is a junior course, while German 40 may be counted as a senior subject. Students from German 1 pass on to either German 2 or German 40 on recommendation of the department.

In addition to German 1 two extra tutorial hours of instruction are offered by the department. This extra tutorial class is formed about November 15 on the basis of standing at the November term examination. Normally those students who take these extra tutorial hours in connection with German 1 will pass into German 40 in their second year, and this will be necessary in the case of prospective honor students.

Students who take the tutorial class may be required in addition to do some reading during the summer vacation.

Students who are unable to take the tutorial class and who have obtained satisfactory standing in German 1 may be admitted to German 40 if they undertake to follow a prescribed course of reading during the summer vacation. By satisfactory standing is meant first class or a high second. A short written examination will be held before registration.

Students entering the University with German 3 of the High School will normally be registered in German 2.

Students entering the University with a fair reading and speaking knowledge of German should consult with the department.

Junior Courses.***1.****3 hrs.**

F. OWEN AND E. MUELLER.

This course will cover the common inflections and the elementary rules of syntax. It aims to give students a reading knowledge of easy German. Oral work and composition.

*2.

3 hrs.

E. MUELLER.

This course is devoted to the development, through the use of graded texts, of a rapid and accurate reading knowledge of German. Selected readings from modern prose writers. Review of grammar with practice in speaking and writing German. Dictation, composition and oral work based on the authors read.

Prerequisite: Matriculation German or German 1.

Intermediate Courses.

40. German.

3 hrs.

E. MUELLER.

The object of the course is to improve the student's reading knowledge of German by careful reading and study of Novellen of the nineteenth and twentieth centuries, and some of the representative German lyric poets. Optional readings in Scientific German and in Military German. Grammar review and expansion; practice in German conversation; written exercises.

German 40 may be taken as a senior course.

Prerequisite: German 2, or German 1 subject to the approval of the Department.

Senior Courses.

54. Eighteenth Century.

3 hrs.

F. OWEN.

(a) Study of the cultural background of the eighteenth century.

(b) Selected works of Lessing, Goethe and Schiller.

(c) Composition and oral work.

Prerequisite: German 2 or German 40.

57. German Literature of the Nineteenth Century.

3 hrs.

E. MUELLER.

This course will consist of a study of the leading exponents of nineteenth century drama, fiction, and poetry, including the background of the Romantic Movement, of Realism, and of Naturalism. A careful study is made of the characteristic qualities of the writers and their contributions to German literature. Essays, composition, and oral work.

Prerequisite: German 54, or German 40 subject to the approval of the Department.

Honor Courses.

101. German Mediaeval Literature and Philology.

3 hrs.

F. OWEN.

Prerequisite: Two senior courses.

103. Old High German Philology and Literature.

3 hrs.

F. OWEN.

Prerequisite: One senior course.

107. Advanced German Composition and Conversation.

1 hr.

E. MUELLER.

Reading of difficult literary material. Drill in pronunciation and intonation; building the German vocabulary; review of points of grammar, depending on the individual needs of students; practice in free composition. The students will have the opportunity to acquire a finer feeling for German style.

Prerequisite: Two senior courses in German.

Honor and Graduate Courses.**115. Conference Course.**

F. OWEN.

A selection may be made from the following:

- (a) Goethe's Faust.
- (b) Schiller's Dramatic Works.
- (c) The German Lyric.
- (d) The Development of German Drama.
- (e) The Development of German Prose Fiction.
- (f) Germanic Philology.
- (g) Other courses according to the needs of the individual student.

Spanish***1. Introductory Spanish.**

3 hrs.

BROTHER ANSBERT.

Introductory course in modern Spanish designed for and restricted to students of School of Commerce.

Text-books: Seymour and Smithers, *Practical Spanish Grammar*.

Supplementary reading: Arturo Torres-Rioseco, *Cartilla Meicana*.

Composition in Spanish, oral exercises and conversation.

***2. Spanish.**

3 hrs.

BROTHER ANSBERT.

Authors.

Armando Palacio Valdes, *Santa Rogelia*.

Miguel Ramos Carrion y Vital Aza, *Zaragueta*.

Text-books: *Progressive Spanish*, Pittaro Green; Study of Modern Spanish idioms.

Dictation, composition and oral work based on the authors read.

Prerequisite: Spanish I or its equivalent.

General Linguistics**105. General Linguistics.**

1 hr.

F. OWEN.

Introduction to the general study of language with special emphasis upon the Indo-European linguistic group and the subsequent development of the modern European derived languages. Introduction to the study of phonetics. Required of students reading for honors in Modern Languages, or French and Latin.

106. Phonetics.

1 hr.

D. M. HEALY AND F. OWEN.

Instruction in the phonetics of French and German will be given separately. Required of students reading for honors in Modern Languages, or French and Latin.

(Not offered in 1943-44.)

PHILOSOPHY AND PSYCHOLOGY**Philosophy****Junior Courses.*****2. Introduction to General Psychology and to Logic.**

3 hrs.

J. MACDONALD.

***3. Introduction to Social Psychology and Social Philosophy.**

3 hrs.

J. MACDONALD.

4. Introduction to Ethics.

3 hrs.

(This course is offered in St. Joseph's College and is accepted as a junior credit by the Department.)

Senior Courses.**51. History of Philosophy.**

3 hrs.

J. M. MACEachran.

The history of thought from the ancients to the present time. In this course special attention will be given to those philosophical and scientific theories which have been most closely related to social, ethical and educational problems.

53. Contemporary Philosophy.

3 hrs.

J. M. MACEachran.

The course will involve the discussion of the present-day tendencies in naturalism, idealism, pragmatism, pluralism, realism and evolutionism.

Prerequisite: Philosophy 51.

54. Ethics and Social Morality.

3 hrs.

J. M. MACEachran.

56. Mediaeval Philosophy.

3 hrs.

(This course is offered in St. Joseph's College and is accepted as a senior credit by the Department.)

57. Greek Philosophy.

3 hrs.

J. M. MACEachran.

58. Modern Philosophy.

3 hrs.

(Not offered in 1943-44.)

Honor and Graduate Courses.

Candidates for honors will arrange their course in consultation with the head of the department.

102. **Modern Philosophy** (Advanced Course). 3 hrs.
- 103-107. **Logic, ethics, aesthetics, metaphysics, the philosophy of religion.**
108. **History of Philosophical and Scientific Thought.**
109. **Conference Course.**
110. **Ancient Philosophy** (Advanced Course).
111. **Mediaeval Philosophy** (Advanced Course).
This course is offered in St. Joseph's College and is accepted as a graduate credit.

Psychology

Senior Courses.

51. **General Psychology.** 3 hrs.

J. MACDONALD.

A comprehensive survey of the general field of psychology.

52. **Social Psychology and Social Philosophy.** 3 hrs.

J. MACDONALD.

The course will include: (a) a detailed study of social influences in their relation to the development of personality; (b) a critical study of anthropological data regarding the origin of language, myth, custom, morality, law, art and religion; (c) a study of the psychological and philosophical bases of Sociology.

(Not offered in 1943-44.)

58. **Psychology in Relation to Social and Economic Reform.** 3 hrs.

Principles and methods of mental hygiene. Motivation of behavior, inheritance and acquisition of mental traits, mental deficiency, abnormal psychology, delinquency and crime.

Studies of experimental work on vocational selection, management of personnel, fatigue, accidents, etc.

Practical work: Psychometric measurements, social service studies, treatment of behavior problems and delinquency.

(Not offered in 1943-44.)

59. **Experimental Psychology.** 3 hrs. lect., 3 hrs. lab.

A survey of methods and results of experimental investigation in psychology. Prerequisite: Philosophy 2 or Psychology 51.

(Not offered in 1943-44.)

Honor and Graduate Courses.

Candidates for honors will arrange their courses in consultation with the head of the department.

101. **Physiological Psychology.** 3 hrs.

102. **Abnormal Psychology.** 3 hrs.

103. **The Psychology of Religion.** 3 hrs.

***104. General and Experimental Psychology, Advanced Course.**

3 hrs. lect., 3 hrs. lab.

The methods and results of experimental investigations in relation to fundamental problems in psychological theory. A directed research project requiring as a minimum the equivalent of three hours per week will be undertaken by each student.

Prerequisite: Psychology 59.

105. History of Psychology.

3 hrs.

Prerequisite: Psychology 51 or Philosophy 51.

PHYSICS***A. Principles of Elementary Physics.**

3 hrs. lect.

H. R. MILLEY.

Mechanics, properties of matter, heat, magnetism and electricity. Illustrated by experiment.

For all students without complete matriculation who have not completed Physics 2 of Grade XII.

Text-book: *Classical and Modern Physics*, Harvey E. White.

***1. General Elementary Physics.**

3 hrs. lect., 2 hrs. lab.

H. R. MILLEY.

Mechanics, properties of matter, heat, magnetism and electricity. Illustrated by experiment.

For all students having complete matriculation but who have not completed Physics 2 of Grade XII.

No student may take this course who has completed Physics 2 of Grade XII.

Text-book: *Classical and Modern Physics*, Harvey E. White.

***21. Properties of Matter, Heat, Light and Sound. 3 hrs. lect., 2 hrs. lab.**

L. H. NICHOLS AND D. B. SCOTT.

Illustrated by experiments.

For first year students in Applied Science, and specially approved first year students in Arts and Science.

Text-book: *Physics*, Hausmann and Slack.

Reference books: *College Physics*, Kimball; *Heat for Students*, Edser.

***40. Elementary Physics.**

3 hrs. lect., 2 hrs. lab.

H. E. JOHNS.

Mechanics, properties of matter, heat, sound and light. Illustrated by experiment.

For students in Arts and Science and the combined courses B.Sc., M.D. and B.Sc., D.D.S. who have completed Physics 2 of Grade XII or Physics A.

Text-book: *Physics*, Hausmann and Slack.

Reference book: *Introductory College Physics*, Blackwood.

***42. Introduction to Light and Wave Theory. 3 hrs. lect., 2 hrs. lab.**

R. J. LANG.

Elementary optics and wave theory introductory to the work of senior and honor courses. Illustrated by experiments. For students of Arts and Science.

Text-book: *Introduction to Physical Optics*, Robertson.

Reference books: *Light for Students*, Edser; *Optics*, Grimsehl; *Fundamentals of Physical Optics*, Jenkins and White; *Light*, Bray.

Prerequisite: A university course in Physics, including laboratory work.

Corequisite: Mathematics 40.

***46. Magnetism and Electricity.** 3 hrs. lect., 2 hrs. lab.

H. E. JOHNS AND E. H. GOWAN.

A course prerequisite to more advanced courses in electrical physics and in electrical engineering. Illustrated by experiments. For second year engineering students and students of Arts and Science.

Text-book: *Physics*, Hausmann and Slack.

Reference books: *Magnetism and Electricity*, Brooks & Poyser; *Electricity*, Pilley; *Electricity*, Bragg; *Fundamentals of Electricity and Magnetism*, Loeb.

Prerequisite: A university course in physics, including laboratory work, and Mathematics 40.

48. Elementary Meteorology. 3 hrs. lect., 3 hrs. lab.

L. H. NICHOLS AND E. H. GOWAN.

An elementary course planned with a view to suit requirements in meteorology in the war service as well as a general survey of the subject.

Text-book: *Introduction to Meteorology*, Petterssen.

Prerequisites: Physics 1, 21, or 40, and Mathematics 40.

Senior Courses.

Physics 40, 42, 46 and 48 may be taken as senior courses in the B.A. or B.Sc. general course.

50. The Development of Modern Physics. 3 hrs. lect.

A descriptive course in modern physics. Considerable attention will be given to the development of science in general from earliest times and to physics in particular from the 17th century as a foundation for the physics of the 20th century. Topics will include: atomic and kinetic theories of matter, quantum theory, radioactivity, elementary electrical particles, the X-ray and optical spectra of the elements, the nucleus, atomic structure, relativity, and certain topics in astrophysics.

For senior students in Arts and Science.

Prerequisite: A university course in physics, including laboratory work.

Text-books: *Makers of Science*, Hart; *An Outline of Atomic Physics*, Blackwood and others (1937 edition).

Reference books: *A History of Science*, Whetham; *Great Men of Science*, Lenard; *The Restless Universe*, Born.

(Not offered in 1943-44.)

51. Physical Optics. 3 hrs. lect., 3 hrs. lab.

R. J. LANG.

A course on the wave theory of light, dealing especially with interference, diffraction, polarisation, double refraction, spectroscopy, the electromagnetic theory of light, absorption and dispersion.

Text-book: *Fundamentals of Physical Optics*, Jenkins and White.

Reference books: *Treatise on Light*, Houston; *Theory of Light*, Preston; *Physical Optics*, Wood; *Diffraction of Light, X-Rays and Material Particles*, Meyer.

Prerequisite: Physics 42.

53. Advanced Electricity and Magnetism. 3 hrs. lect., 3 hrs. lab.

E. H. GOWAN.

Precision electrical and magnetic measurements, electrostatics and potential theory, direct and alternating current circuits, selected topics in electromagnetic theory. The use of vector methods will be stressed.

Text-books: *Advanced Laboratory Practice in Electricity and Magnetism*, Terry and Wahlin; *Advanced Electrical Measurements*, Michels; *Introduction to Vector Analysis*, Hague.

Reference books: *Theoretical Physics*, Page; *Electricity and Magnetism*, Jeans. *Treatise on Electricity*, Pidduck; *Principles of Electricity*, Page and Adams; *Electrical Measurements*, Laws; *Principle of D.C. Machines*, Langdorf.

Prerequisite: Physics 46 and Mathematics 55.

Corequisite: Math. 57.

54. Introduction to the Electron Theory. 3 hrs. lect., 3 hrs. lab.

L. H. NICHOLS AND H. E. JOHNS.

This course deals with the passage of electricity through gases, ionisation by collision, cathode rays, X-rays, photo-electricity, thermionic emission, radio-activity, positive ray analysis, isotopes, spectroscopy, and atomic structure.

For senior students in Arts and Science.

Text-book: *An Elementary Survey of Modern Physics*, Hull.

Reference books: *An Outline of Atomic Physics*, Blackwood and others; *The Electron*, Millikan; *Electricity in Gases*, Townsend; *X-rays and Crystal Structure*, Bragg; *Radio-activity*, Rutherford; *X-rays and Electrons*, Compton; *Isotopes*, Aston; *Fundamental Processes of Electrical Discharge in Gases*, Loeb.

Prerequisite: Physics 46 and Mathematics 55.

(Not offered in 1943-44.)

56. Electronics and Radio. 3 hrs. lect., 3 hrs. lab.

E. H. GOWAN AND H. E. JOHNS.

The motions of electrons and gaseous ions. The theory of electronic measuring instruments and multi-electrode radio tubes. The oscillating circuit. Measurement of inductance and capacity. Electromagnetic waves and modulation. The super-heterodyne radio receiver.

For B.Sc. students in Honors and in the General Course.

Pre-requisite: Mathematics 40 and Physics 46.

Co-requisite: Mathematics 55.

Reference Books: *Electronics*, Millman and Seely; *Television*, Zworukin and Morton; *Electrons at Work*, Underhill; *Theory and Application of Electron Tubes*, Reich.

Honor and Graduate Courses.**100. Kinetic and Molecular Theories. 2 hrs. lect.**

R. J. LANG.

Subjects treated are: viscosity, surface tension, capillarity, elasticity, and the kinetic theory of gases.

Reference books: *Kinetic Theory of Gases*, Bloch; *Kinetic Theory of Gases*, Loeb; *Properties of Matter*, Poynting and Thomson.

(Not offered in 1943-44.)

101. Thermodynamics and an Introduction to the Quantum Theory. 2 hrs. lect.

R. J. LANG.

The principles of thermodynamics and their application; the laws of black body radiation; entropy and probability; the early development of the quantum theory.

Text-book: *Heat and Thermodynamics*, Roberts.

Reference books: *Theory of Heat*, Preston; *Thermodynamics*, Birtwistle; *The Quantum Theory*, Bligh; *Thermodynamics for Engineers*, Ewing; *Thermodynamics*, Epstein.

102. Mathematical Physics. 2 hrs. lect.

R. J. LANG.

Theory of attraction and potential as applied to gravitation, magnetism and electrostatics; elements of hydrodynamics; Fourier's Series; the conduction of heat; theory of vibrations and wave theory.

Text-book: *Introduction to Mathematical Physics*, Houstoun.

Reference books: *Introduction to Theoretical Physics*, Page; *Introduction to Theoretical Physics*, Slater and Frank; *Vibration and Sound*, Morse.

Prerequisite: Math. 57.

(Not offered in 1943-44.)

103. Modern Atomic Theory. 2 hrs. lect.

For students in honors Physics.

The atom and its structure; the X-ray radiation and the optical spectra of the atom; theory of line spectra, including the Zeeman effect; periodic properties of the elements.

Reference books: *Structure of the Atom*, Andrade; *Quantum Theory of the Atom*, Birtwistle; *Theory of Spectra and Atomic Constitution*, Bohr; *Atomic Structure and Spectral Lines*, Sommerfeld; *Experimental Atomic Physics*, Harnwell and Livingwood; *Introduction to Modern Physics*, Richtmyer.

Prerequisite: Physics 51 and 54.

(Not offered in 1943-44.)

104. Selected Topics. 2 hrs. lect.**PHYSIOLOGY****60. 3 hrs. lect.**

A. W. DOWNS.

A lecture course on the physiology of the blood, the circulation, digestion, absorption, assimilation, excretion, respiration and animal heat.

For students of Household Economics.

61. 3 hrs. lect., 3 hrs. lab.
A. W. DOWNS AND STAFF.

Open to students of the senior years in Arts and Science.

Prerequisite: Chemistry 1 and Chemistry 42.

Students who propose to register in this course must consult the head of the department.

62. 2 hrs. lect., 3 hrs. lab.
A. W. DOWNS AND STAFF.

For students who are taking honors in Psychology.

POLITICAL ECONOMY

- *1. Principles of Economics. 3 hrs.

H. W. HEWETSON AND OTHER MEMBERS OF THE DEPARTMENT.

A general introduction to the study of the tendencies underlying the wealth-getting and wealth-using activities of man. In this course there will be two lectures a week and the class will be divided into discussion groups for the third hour.

- *10. Economic Geography. 3 hrs. sec. half.

H. W. HEWETSON.

A study of the world's production and trade as influenced by geographic and economic conditions. Open to students in Commerce.

Senior Courses.

61. Canadian Economics. 3 hrs.

Economic analysis applied to certain aspects of the Canadian economy; population, income, consumption, production, trade, distribution.

Prerequisite: 1, 7 or 51.

63. Political Theory. 3 hrs.

G. A. ELLIOTT.

A study of the organization and government of men in political and social communities, including an historical survey of political thought, and discussion of important problems in the theory of government.

(Not offered in 1943-44.)

64. Trade and Transportation. 3 hrs.

H. W. HEWETSON.

- (a) The principles of transportation with special reference to Canadian problems.

G. A. ELLIOTT.

- (b) International trade, economic protectionism, commercial policies, tariffs.
Prerequisite: 1, 7 or 51.

65. Labor Problems.

3 hrs.

A. STEWART.

Theory of wages; methods of wage payment; hours of labor; real wages and standards of living; unemployment; labor organization; collective bargaining; labor legislation.

66. Money and Banking.

3 hrs.

H. W. HEWETSON AND G. A. ELLIOTT.

The principles of money, monetary systems, commercial banking, central banking, foreign exchange.

Prerequisite: 1, 7 or 51.

(Not offered in 1943-44.)

67. Public Finance and Taxation.

3 hrs.

G. A. ELLIOTT.

Public expenditures, budgets, and budgetary legislation, public domains and public industries, taxation, public credit, provincial and local taxation.

Prerequisite: Course 1, 7 or 51.

68. Economics of Agriculture.

3 hrs.

A. STEWART.

Economic analysis of the special problems of agriculture; demand for farm products; variations in output and prices; stabilization programs; production costs; supply and price of agricultural land, labor and capital.

Prerequisite: Course 1, 7 or 51.

69. Corporation Finance and Risk.

3 hrs.

H. W. HEWETSON.

(a) The nature of corporations, their promotion, capitalization, financing, consolidation, reorganization.

(b) The principles of risk bearing, the business cycle, insurance, speculation, business forecasting, the theory of profits.

Prerequisite: Course 1, 7 or 51.

(Not offered in 1943-44.)

73. Principles of Marketing.

3 hrs. first half.

H. W. HEWETSON.

Functions and mechanisms of marketing; price determinations and policy; co-operative marketing. Open to students in Commerce.

Honor and Graduate Courses.**101. History of Economic Theory.**

3 hrs.

G. A. ELLIOTT.

From the Mercantilists to the end of the 19th century.

(Not offered in 1943-44.)

102. Modern Economic Theories.

3 hrs.

G. A. ELLIOTT.

A critical examination of modern economic thought.

(Not offered in 1943-44.)

103. Economic Programs.

3 hrs.

H. W. HEWETSON.

Economic problems of reform programs.

120-130.

Special graduate and conference courses in (120) consumption, (121) rent, (122) risk, (123) marketing, (124) trade, (125) labor, (126) money, (127) public finance, (128) agricultural economics, (129) corporation finance and (130) transportation, which may be arranged in consultation with the department.

SPANISH

See under Modern Languages, page 119.

ZOOLOGY**Junior Courses.*****1. Animal Biology (Arts).**

3 hrs. lect., 3 hrs. lab.

W. ROWAN AND R. B. MILLER.

Animal organization; comparative morphology and anatomy; essentials of histology; principal phenomena of distribution, behaviour, ecology, development and reproduction; evolution, variation and heredity.

***2. General Elementary Zoology (Medicine). 3 hrs. lect., 3 hrs. lab.**

W. ROWAN AND W. HUGHES.

Frog, rabbit, and other types; dog's skull, cat's brain, hog's heart; parasitology; histology; heredity, variation and evolution.

***3. Elementary Embryology (Second Year B.Sc., M.D.).**

3 hrs. lect., 3 hrs. lab. first half.

W. HUGHES.

Embryology of amphioxus, frog and chick to 60 hours; other selected types.
Prerequisite: Zoology 2.

Senior Courses.**51. Comparative Anatomy of Chordates.**

3 hrs. lect., 3 hrs. lab.

W. ROWAN AND R. B. MILLER.

A comparative review of the vertebrates, with dissections of available types from all classes.

Text-book: Parker and Haswell, *Text-book of Zoology*, 6th edition; Hyman, *Comp. Vert. Anat.*

Prerequisite: Zoology 1 or Zoology 2.

52. Comparative Anatomy of Invertebrates. 3 hrs. lect., 3 hrs. lab.

R. B. MILLER AND W. ROWAN.

A review of the anatomy of members of the various invertebrate phyla designed to illustrate the evolution of the principal organ systems. The ecological aspects will also be touched upon.

Text-book: Parker and Haswell, *Text-book of Zoology*, 6th edition; Borradale, *et al*, *Invertebrata*.

Prerequisite: Zoology 1 or Zoology 2.

53. Embryology.

3 hrs. lect., 3 hrs. lab.

W. HUGHES.

First half as Zoology 3; thereafter later development of chick and embryology of the mammalia; experimental embryology.

Prerequisite: Zoology 51.

55. Ornithology.

3 hrs. lect., 3 hrs. lab.

Anatomy and osteology of Ratite and Carinate birds; histology of avian tissues; taxonomy and ecology, with special reference to birds of North America.

Prerequisite: Zoology 1 or 2, and Zoology 51.

101. Animal Behavior.

3 hrs. lect., 6 hrs. lab. first half.

Animal psychology; intelligence; instincts; tropisms; sex.

Text-books: Holmes; Loeb.

102. Animal Ecology.

3 hrs. lect., 6 hrs. lab. sec. half.

The relation of the animal to its environment; distributions; inter-relations of animal communities; the effects of light, temperature, etc., on the individual.

103. Taxonomy of Birds and Mammals of the World: Life Histories of American Species.

Prerequisites: Zoology 1 or 2; Zoology 51.

FACULTY OF
AGRICULTURE

FACULTY OF AGRICULTURE

Matriculation, page 31.

General University Regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
Medical Service	5.00
Caution Money	5.00
Library	5.00

Agriculture (tuition):

- | | |
|--|----------|
| (a) Instruction per session, first year | \$ 75.00 |
| Instruction per session, subsequent years | 90.00 |
| If paid in instalments, \$2.50 additional. | |
| (b) <i>Arts and Agriculture:</i> | |
| Instruction per session, first, second and third years | 110.00 |
| Instruction per session, fourth and fifth years | 90.00 |
| If paid in instalments, \$2.50 additional. | |
| Laboratory fee \$5.00 per course, maximum \$10.00. | |

FACULTY OF AGRICULTURE

In the Faculty of Agriculture courses are offered leading to the degree of B.Sc. in Agriculture.

The term "New Course" refers to a new program of studies based upon the matriculation requirements effective 1941-42, whereas the term "Old Course" applies to arrangements in effect under previous matriculation standards.

THE DEGREE OF B.Sc. IN AGRICULTURE

FIRST YEAR (NEW COURSE)

(Students from High Schools)

SUBJECTS	First Half		Sec. Half		Pge.
	Lect.	Lab.	Lect.	Lab.	
Agricultural Engineering 1	1	3	1	3	138
Animal Husbandry 1	1	3	1	3	139
Botany 1	3	3	3	3	142
Chemistry 43	3	3	2	3	144
Entomology 1	2	...	2	...	145
Field Crops 1	1	3	1	3	146
Political Economy 7	2	...	2	...	151
Veterinary Science 1	1	...	1	...	141

FIRST YEAR (NEW COURSE)

(Students from Schools of Agriculture)

SUBJECTS	First Half		Sec. Half		Pge.
	Lect.	Lab.	Lect.	Lab.	
Animal Husbandry 2	2	2	2	2	138
Botany 1	3	3	3	3	142
Chemistry 1	3	3	3	3	143
English 1	3	...	3	...	144
Horticulture 1	3	...	3	...	148
Mathematics 4	3	...	3	...	149

FACULTY OF AGRICULTURE

SECOND YEAR (NEW COURSE)

(Students from High Schools)

SUBJECTS	First Lect.	Half Lab.	Sec. Lect.	Half Lab.	Pge.
Bacteriology 1	2	3	...	...	142
Chemistry 42	3	3	3	3	143
Dairying 1	3	3	...	...	144
Horticulture 1	3	...	3	...	148
Mathematics 44	3	...	3	...	150
Poultry 1 .....	...	...	3	3	141
Soils 51 and 52	2	3	2	3	151
Zoology 4 .....	...	...	3	3	152

SECOND YEAR (NEW COURSE)

(Students from Schools of Agriculture)

SUBJECTS	First Lect.	Half Lab.	Sec. Lect.	Half Lab.	Pge.
Bacteriology 1	2	3	...	...	142
Chemistry 43	3	3	2	3	144
Dairying 1	3	3	...	...	144
Mathematics 44	3	...	3	...	150
Physics 1	3	2	3	2	150
Poultry 1 .....	...	...	3	3	141
Zoology 4 .....	...	...	3	3	152

THIRD AND FOURTH YEARS

After the first two years are completed, course arrangements are offered along two main lines. A General Course is offered which has been designed to provide a broad training in Agriculture. It is believed that this course should meet the needs of a large number of students. In addition, Special Courses are available for students who desire to undertake a certain degree of specialization in some particular field of Agriculture. A course may be outlined to make it possible for the student to emphasize one of the following: Field Crops (including Plant Pathology), Horticulture, Soils, Animal Husbandry, Poultry, Dairying, Entomology and Agricultural Economics.

After the requirements of the first two years have been fulfilled, a minimum of 44* hours is required for graduation. Students must register first for courses in which they are deficient, second for required courses, and third for elective courses to the extent of the required credit. Students may, under advice, register for additional courses up to a maximum total registration of 28 hours in any one year. This total may not be exceeded except by special permission of the Dean and the Faculty. Courses included in excess of 44 hours for the two years must, at the time of registering for the final year, be designated as "extras" in order to exclude them from the contract for graduation. Changes in registration can be made only by arrangement with the Registration Committee before November 1st in the case of full year or first term courses, or before February 1st in the case of second term courses.

In order to insure a registration in the third and fourth years which will be satisfactory to the Faculty, students in Special Courses must consult with the Department chiefly concerned. The program arranged must be submitted to the Registration Committee for approval at the time of registration.

Attention is directed to the regulation that a student is responsible for the completeness and accuracy of his registration. (See page 53.)

*24 hours for "Old Course" students from Schools of Agriculture.

GENERAL COURSE (OLD)

REQUIRED SUBJECTS	First	Half	Sec. Half		Pge.
	Lect.	Lab.	Lect.	Lab.	
*Bacteriology 1	2	3	...	...	142
*Political Economy 7	2	...	2	...	151
*Soils 51 and 52	2	3	2	3	151
Agricultural Engineering 2	1	2	1	2	138
Animal Husbandry 67 and 71	2	3	2	3	140
Dairying 53 and 54	1	2	1	2	143
English (Public Speaking and English 3)	3	...	3	...	145
Entomology 53	3	...	3	...	145
Field Crops 51	3	...	3	...	146
Veterinary Science 51	1	...	1	...	141
Zoology 4 .....	...	...	3	3	152

*For students from High Schools.

FACULTY OF AGRICULTURE

GENERAL COURSE (NEW)

REQUIRED SUBJECTS	First	Half	Sec.	Half	Pge.
	Lect.	Lab.	Lect.	Lab.	
Chemistry 42	3	3	3	3	143
Entomology 1	2	...	2	...	145
Political Economy 7	2	...	2	...	151
Soils 51 and 52	2	3	2	3	151
English (Public Speaking and English 3)	3	...	3	...	145
Field Crops 50 and 80	3	3	3	3	146
Agricultural Engineering 2	1	2	1	2	138
Animal Husbandry 2	2	2	2	2	138
Animal Husbandry 67 and 71	2	3	2	3	140
Dairying 53 and 54	1	2	1	2	143
Entomology 53	3	...	3	...	145
Field Crops 51	3	...	3	...	146
Horticulture 51	3	...	3	...	149
Political Economy 68 (or English 4)	3	...	3	...	151
Poultry 60	1	2	1	2	141
Soils 53 and 54	2	3	2	3	151
Veterinary Science 51	1	...	1	...	141

NOTE.—Students from Schools of Agriculture must register in their third year for the first six courses listed above and in the third and fourth years must register for a minimum of 44 hours chosen from the whole group.

Students from High Schools, having taken the first four of the above courses in the two junior years, must register for a minimum of 44 hours from the remaining courses in the Group.

SPECIAL COURSES

REQUIRED SUBJECTS (OLD COURSE)	First	Half	Sec.	Half	Pge.
	Lect.	Lab.	Lect.	Lab.	
*Bacteriology 1	2	3	...	...	142
*Political Economy 7	2	...	2	...	151
*Soils 51 and 52	2	3	2	3	151
English (Public Speaking and English 3)	3	...	3	...	145
Zoology 4 .....	...	...	3	3	152

*For students from High Schools.

REQUIRED SUBJECTS (NEW COURSE)	First	Half	Sec.	Half	Pge.
	Lect.	Lab.	Lect.	Lab.	
**Chemistry 42	3	3	3	3	143
**Entomology 1	2	...	2	...	145
**Political Economy 7	2	...	2	...	151
**Soils 51 and 52	2	3	2	3	151
English (Public Speaking and English 3)	3	...	3	...	145

**For students from Schools of Agriculture.

SUGGESTED ELECTIVE SUBJECTS	First Half		Sec. Half		Pge.
	Lect.	Lab.	Lect.	Lab.	
Accounting 1	3	2	3	2	87
Accounting 2	3	2	...	...	191
Agricultural Engineering 2	1	2	1	2	138
Agricultural Engineering 53	1	3	1	3	139
Animal Husbandry 2	2	2	2	2	139
Animal Husbandry 65	3	...	...	...	139
Animal Husbandry 66 .....	...	...	1	2	140
Animal Husbandry 67 .....	...	3	...	3	140
Animal Husbandry 68 .....	...	...	3	...	140
Animal Husbandry 71	2	...	2	...	140
Animal Husbandry 72	2 to 4	...	2 to 4	...	140
Biochemistry 61	3	3	3	3	142
Biochemistry 71	1	3	1	3	142
Botany 51	3	3	3	3	142
Botany 52	3	3	3	3	142
Botany 53 (as full year or half year course)	3	3	3	3	143
Botany 55	3	3	3	3	143
Chemistry 54	3	3	3	3	92
Chemistry 58	2	6	2	6	93
Dairying 53	1	2	...	...	144
Dairying 54 .....	...	...	1	2	144
Dairying 55	3	3	...	...	144
Dairying 56 .....	...	...	3	3	144
English 4	3	...	3	...	100
Entomology 53	3	...	3	...	145
Entomology 61	3	3	3	3	145
Field Crops 50	2	3	2	3	146
Field Crops 51	3	...	3	...	146
Field Crops 53 .....	...	3	...	3	147
Field Crops 61	3	...	...	...	147
Field Crops 62 .....	...	...	3	...	147
Field Crops 80	1	...	1	...	147
Field Crops 81	3	3	...	...	147
Field Crops 82 .....	...	...	3	3	147
French	3	...	3	...	150
Genetics 51	3	3	3	3	105
Geology 1	3	2	3	2	148
German	3	...	3	...	150
Horticulture 51	3	...	3	...	149
Horticulture 52	3	...	3	...	149
Latin	3	...	3	...	95
Mathematics 40	3	2	3	2	149
Mathematics 42	3	3	3	3	149
Mathematics 55	3	...	3	...	113
Physics 1	3	2	3	2	150
Physics 46	3	2	3	2	123
Physiology 61	3	3	3	3	126
Political Economy 68	3	...	3	...	151
Political Economy 72	2	...	2	...	151
Poultry 51	2	3	2	3	141
Poultry 55	2	3	2	3	141
Poultry 60	1	3	1	3	141
Soils 53	2	3	...	...	151
Soils 54 .....	...	...	2	3	152
Soils 55 .....	...	...	2	...	152
Veterinary Science 51	1	...	1	...	141

PRACTICAL EXPERIENCE QUALIFICATION

Students must satisfy the Faculty that they have had adequate practical experience before they will be allowed to graduate. This may have been obtained before entering the University. If it has not, then arrangements should be made to get it during the summer months.

However, in February of each year an opportunity will be given to students to present themselves before a Committee, under the direction of the Dean of the Faculty of Agriculture, and outline the work which they have done to meet the Practical Experience Qualification.

This should be done before the end of their second year.

BACHELOR OF SCIENCE IN AGRICULTURE WITH DISTINCTION

The degree of Bachelor of Science in Agriculture with High Distinction or with Distinction may, at the discretion of the Faculty, be awarded to a student who has made a scholastic record of distinctive merit during the last two full years of work. To be eligible for the degree with distinction, the student must have an average of not less than 80%. When the average mark for the last two years' work is 85% or more, a student is eligible for consideration for a degree with high distinction.

DETAILS OF COURSES

For particulars regarding members of staff, see page 11.

*Attendance courses, see page 53.

AGRICULTURAL ENGINEERING

Junior Courses.

*1. Agricultural Engineering.

1 hr. lect., 3 hrs. lab.

J. M. SMITH.

The planning of farm buildings and farmsteads. A brief study of materials of construction and the strength of materials; applications of ventilation, heating, lighting, water supply and sewage disposal problems to agriculture. Sufficient work will be given in the use of drawing instruments and in elementary surveying to enable students to take field notes and make a farm plan from them.

Text-book: *Farm Buildings*, Foster and Carter.

*2. Agricultural Engineering.

3 hrs. lect.-lab.

J. M. SMITH.

A practical study of all lines of tillage, seeding, fertilizing, harvesting and threshing machinery. The regional use of farm machinery. Draft of plows and other implements. In the laboratory an effort will be made to furnish students with all the different types of machines with which they must deal on the average Alberta farm.

Text-book: *Farm Machinery and Equipment*, Smith.

Senior Courses.

- *51. Agricultural Engineering** 1 hr. lect., 3 hrs. lab.

J. M. SMITH.

This course is similar to A.E. 1, and may be elected. (Open only to students who have not taken the first year course in Agriculture in this university.)

- *53. Agricultural Engineering.** 1 hr. lect., 3 hrs. lab.

J. M. SMITH.

A study of the sources and applications of mechanical power on the farm. In the laboratory an effort will be made to have a number of small engines and tractors, which are on the market, for examination. The object of the course is to enable students to become familiar, more especially, with the fundamental principles of the internal combustion engine, namely, valve timing, carburetion, lubrication, ignition, and to get sufficient practice in operation to enable them to locate and correct the most common troubles.

Text-book: *Farm Gas Engines and Tractors*, Jones.

ANIMAL SCIENCE**Animal Husbandry****Junior Courses:**

- *1. Types and Market Classes of Beef Cattle, Dairy Cattle, Horses, Sheep and Swine.** 1 hr. lect, 3 hrs. lab.

J. P. SACKVILLE.

A consideration of the various types and market classes with special reference to present day market requirements. A study of the live animal and in the case of beef cattle, sheep and swine, a study of the carcass with a view to demonstrating the relationship existing between form and function.

Text-book: *Judging Farm Animals*, Plumb.

- *2. Breed Studies—Feeding and Management.** 2 hrs. lect., 2 hrs. lab.

R. D. SINCLAIR AND J. E. BOWSTEAD.

A study of the origin characteristics and adaptability of the various common breeds of livestock. Judging according to breed standards.

A brief survey of the field of animal nutrition together with a study of the various practical problems met with in the feeding and management of horses, cattle, sheep and swine.*

Text-book: *The Breeds of Farm Livestock in Canada*, MacEwan; *Feeds and Feeding*, Morrison.

Senior Courses.

- 65. Animal Breeding.** 3 hrs. lect., first half.

J. E. BOWSTEAD.

Application of the principles of genetics to the improvement of farm animals.

A study of reproduction, selection and the approved methods of practice.

Text-book: *Animal Breeding Plans*, Lush.

***66. Herd Book Studies and Breed Development.**

1 hr. lect., 2 hrs. lab., sec. half.

R. D. SINCLAIR AND J. E. BOWSTEAD.

A review of the work of the outstanding improvers of the various breeds of livestock, together with a consideration of the leading sires and blood lines with which these names are identified. A study of the requirements for registration and transfer in the various breeds, as well as for official records in dairy cattle. Practical work in extending pedigrees.

Prerequisite: A.H. 2.

***67. Advanced Judging.**

3 hrs. lab.

J. P. SACKVILLE.

Advanced work in judging horses, cattle, sheep and swine.

Prerequisite: A.H. 2.

68. Animal Nutrition.

3 hrs. lect., sec. half

R. D. SINCLAIR.

A detailed study of the principles of nutrition and of the nutritional requirements of farm animals. A review of recent findings in the field of research in animal feeding and of the results secured from practical feeding experiments with horses, cattle, sheep and swine.

Text-book: Maynard, *Animal Nutrition*.

Prerequisite: A.H. 2.

71. Economics of Livestock Production.

2 hrs. lect.

J. P. SACKVILLE, R. D. SINCLAIR AND J. E. BOWSTEAD.

A study of the major economic problems in the field of livestock production and marketing. This includes a study of production costs, marketing facilities, together with a discussion of the domestic and export markets for Canadian livestock and livestock products.

72. Animal Husbandry.

Topical Study, 2-4 hrs. lab.

J. P. SACKVILLE, R. D. SINCLAIR AND J. E. BOWSTEAD.

A course in which the individual student may select a problem in livestock production for library and laboratory study. Credits of from 2 to 4 hours based on amount of work done.

Graduate Courses.

Advanced work leading to the degree of M.Sc. is offered to students whose previous training and academic standing is sufficiently high to justify further studies in animal husbandry. These courses will include special work both in lectures and research in the Department of Animal Science, together with related courses in other departments of the University.

101. Advanced Animal Production and Nutrition.

A review of the basic principles of animal nutrition together with a consideration of the fundamental experimental work in animal husbandry conducted at leading experiment stations.

111. Experimental Methods.

A study of methods of experimentation and research in animal husbandry and consideration of the main problems in this field worthy of experimentation. Laboratory work in planning and executing experiments, in the keeping of records and interpretation of experimental results.

Poultry Husbandry**Junior Course.**

- *1. General Poultry Husbandry.** 3 hrs. lect., 3 hrs. lab., sec. half.

D. R. CLANDININ.

Breeds and varieties of poultry. Selection and improvement. Incubation. Brooding. Feeding. Housing. Diseases. Marketing.

Senior Courses.

- 51. Breeds and Breeding.** 2 hrs. lect., 3 hrs. lab.

D. R. CLANDININ.

Breeds and varieties of poultry, their origin, characteristics and economic qualities. Judging exhibition and utility classes. Sex and reproduction. Mendelian inheritance. Inheritance in poultry. Breeding practice. Study of literature. Inspection of plants.

(Not offered in 1943-44.)

- 55. Nutrition and Feeding.** 2 hrs. lect., 3 hrs. lab.

D. R. CLANDININ.

Nutrients. Digestion and metabolism. Feedstuffs. Nutritional requirements. Compounding rations. Feeding practice. Equipment. Costs. Study of literature. Inspection of plants.

- 60. Diseases and Hygiene.** 1 hr. lect., 3 hrs. lab.

D. R. CLANDININ.

The mortality problem. Anatomy of the fowl. Surgery. Bacterial, virus and protozoan diseases. Nutritional disorders. Miscellaneous conditions. Internal and external parasites. Autopsies. Study of literature. Inspection of plants.

Veterinary Science**Junior Course.**

- 1. Veterinary Science.** 1 hr. lect.

P. R. TALBOT.

A study of the structure of the animal body, comparisons of cattle, horses, sheep and swine, with special reference to faulty conformation in horses associated with unsoundness. A discussion of some of the more common digestive and infectious diseases affecting farm animals.

Senior Course.

- 51. Veterinary Science.** 1 hr. lect.

P. R. TALBOT.

Sanitation in relation to control of animal diseases. Regulations of the Dominion Animal Contagious Disease Act. Use of biologics in control of diseases. Abnormal conditions affecting reproduction.

BACTERIOLOGY

- *1. Elementary Bacteriology.** 2 hrs. lect., 3 hrs. lab., first half.

R. M. SHAW AND J. A. ROMEYN.

Demonstrations in elementary bacteriology. Practical laboratory exercises, i.e., making of media, staining, etc.

BIOCHEMISTRY

- 1 and 61. General Course.** 3 hrs. lect., 3 hrs. lab.

G. HUNTER AND M. M. CANTOR.

Physico-chemical. Chemistry of carbohydrates, fats, and proteins. Enzymes, Digestion. Respiration and relation of haemoglobin and acid-base equilibrium to. Metabolism in relation to nutrients, muscle, internal secretions, and minerals. Vitamins and Nutrition. Text and reference books will be mentioned in the lectures.

- 71. Plant Biochemistry.** 1 hr. lect., 3 hrs. lab.

G. HUNTER AND J. TUBA.

Open to students with prerequisites Botany 1 and Biochemistry 61. Will be offered each alternate year. Plant carbohydrates, fats, proteins, glucosides, acids, bases, phenols, tannins, "essential oils." Plant pigments; chlorophyll, carotinoids, flavones, anthocyanins. Enzymes, respiration and metabolism. Special reading will be prescribed for the course.

Students proceeding to the degree of M.A. or M.Sc. in Biochemistry should consult the Head of the Department with regard to requirements and research facilities.

(Offered in 1943-44.)

BOTANY**Junior Course.**

- *1. General Elementary Botany.** 3 hrs. lect., 3 hrs. lab.

E. H. MOSS, R. G. H. CORMACK AND J. H. WHYTE.

An introduction to the morphology and physiology of the cell. Elements of plant anatomy, physiology, classification and reproduction. General principles of heredity.

Senior Courses.

- 50. Flowering Plants.** 3 hrs. lect., 3 hrs. lab.

E. H. MOSS.

Morphology, classification and ecology of flowering plants with special reference to those commonly found in Alberta. Identification of species. Taxonomic concepts. The conservation and utilization of natural plant resources.

Prerequisite: Botany 1 or Biology 1.

- 51. Plant Anatomy and Histology.** 3 hrs. lect., 3 hrs. lab.

R. G. H. CORMACK.

Critical studies on the structure and development of plant tissues and cells in the higher plants.

Microtechnique. Theories of staining. Microchemical tests.

Prerequisite: Botany 1.

(Offered each alternate year. Not offered in 1943-44.)

52. Plant Physiology.

3 hrs. lect., 3 hrs. lab.

J. H. W_{HYTE}.

Fundamental aspects of physiology with particular reference to the higher plants. The physiology of the cell in terms of physical and colloid chemistry.

Prerequisites: Botany 1, Physics 1, Chemistry 43, 42.

(Not offered in 1943-44.)

53. Seedless Plants.

3 hrs. lect., 3 hrs. lab.

E. H. Moss.

Classification, morphology and reproduction of the Fungi, Algae, Bryophyta and lower Pteridophyta. Evolution of the lower groups of plants.

(a) Fungi.

(b) Algae, Bryophyta, Pteridophyta.

Students in the Faculty of Agriculture are permitted to restrict their registration to Botany 53(a) taken in the first term, or 53(b) taken in the second term.

(Not offered in 1943-44.)

Prerequisite: Botany 1.

55. Lower Vascular Plants.

3 hrs. lect., 3 hrs. lab.

E. H. Moss.

Morphology of the Pteridophyta and Gymnospermae, including extinct groups. Evolution of modern plants as illustrated by the structure of fossil types from various geological horizons.

Prerequisites: Botany 1 and Geology 1.

(Offered each alternate year. Not offered in 1943-44.)

CHEMISTRY

***1. General Chemistry.**

3 hrs. lect., 3 hrs. lab.

J. L. MORRISON.

Lectures: An elementary survey of chemical science and industry, illustrated by the chemistry of metals, non-metals and carbon compounds.

Laboratory: Experiments related to the lecture material.

Text-book: Kharasch and MacKenzie, *Essentials of College Chemistry*.

***42. Organic Chemistry.**

3 hrs. lect., 3 hrs. lab.

R. B. SANDIN.

Lectures: An introduction to the aliphatic and the aromatic series.

Laboratory: The preparation of some organic compounds.

Text-book: Lucas, *Organic Chemistry*.

Laboratory Manual: Fisher, *Laboratory Manual of Organic Chemistry*.

Prerequisite: Chem. 1 or its equivalent.

***43. Inorganic Chemistry** (For Agriculture students only).

3 hrs. lect. 3 hrs. lab. first half, 2 hrs. lect. 3 hrs. lab. sec. half.

O. J. WALKER AND W. A. LANG.

Lectures: Same as in Chemistry 40.

Laboratory: Introductory quantitative inorganic analysis.

Text-books: Philbreck and Holmyard, *Theoretical and Inorganic Chemistry*;Yoe, *Chemical Principles*; Pierce and Haenisch, *Quantitative Analysis*.

Prerequisite: Chemistry 1 or complete Grade XII Chemistry.

DAIRYING**Junior Course.****1. General Dairying.**

3 hrs. lect., 3 hrs. lab., first half.

H. R. THORNTON AND W. L. DUNKLEY.

A general survey of the economics, chemistry, physics and bacteriology of dairying; legal standards; the manufacture of milk products, particularly on a home-dairy basis; laboratory studies illustrating the lectures.

Text-book: Eckles, Combs and Macy, *Milk and Milk Products* (McGraw-Hill).

Senior Courses.**53. Dairy Technology.**

3 hrs. lect.-lab., first half.

H. R. THORNTON AND W. L. DUNKLEY.

Chemistry and chemical tests applied to milk products.

54. Milk Products.

3 hrs. lect.-lab., sec. half.

H. R. THORNTON AND W. L. DUNKLEY.

The commercial manufacture of butter, cheese and other milk products.

55.

3 hrs. lect., 3 hrs. lab., first half.

H. R. THORNTON.

The relationships, characteristics and metabolism of micro-organisms concerned with fermentations of agricultural interest.

Prerequisite: Bacteriology 1.

56. Dairy Bacteriology.

3 hrs. lect., 3 hrs. lab., sec. half.

H. R. THORNTON.

The bacteriology of the production and distribution of fluid milk and cream and a consideration of some of the problems of the market-milk industry. Milk supplies and public health. The bacteriological and chemical aspects of pasteurization. The bacteriology of butter, cheese, ice-cream and other milk products.

Prerequisite: Dairying 55.

ENGLISH**Junior Courses.*****1. Composition and Literature.**

3 hrs.

C. R. TRACY.

Practice in composition and study of selected texts.

Rachel Salisbury, *Better Composition* (Gage); Conrad, *Twixt Land and Sea*

(Dent); Hudson, *Purple Land* (Nelson); Kinglake, *Eothen* (Nelson); Shakespeare, *Romeo and Juliet* (Pocket Books Inc.); *Twentieth Century Plays (American)* (Revised edition: Nelson); *Modern American and British Poetry*, ed. Untermeyer (Harcourt, Brace).

***3. For Students in Agriculture.**

1 hr.

C. R. TRACY.

Reading of selected books, with class discussion.

ENTOMOLOGY

Junior Course.

***1. General Economic Entomology.**

2 hrs. lect.

J. H. BROWN.

Structure and habits of insects in relation to their economic importance. Principles of control methods. Life histories and control of more important insect pests.

Text-book: Wardle, *General Entomology*.

Senior Courses.

53. Economic Entomology.

3 hrs. lect.-lab.

J. H. BROWN.

Recognition and study of the more important insect pests of Alberta with methods of control.

Prerequisite or co-requisite: Entomology 1.

Text-book: Fernald and Shepard, *Applied Entomology*.

61. General Entomology.

3 hrs. lect., 3 hrs. lab.

J. H. BROWN.

Structure of insects, their habits and interrelationships; introduction to classification and recognition of common species; insects of major importance to agriculture and to human health.

Text-book: Folsom and Wardle, *Entomology with reference to its Ecological Aspects*.

Reference books: Comstock, *An Introduction to Entomology*; Imms, *Text-book of Entomology*.

62. Taxonomy and Technique.

6 hrs. lect.-lab.

E. H. STRICKLAND.

Classification of insects; methods of studying life histories; breeding, mounting and preserving insects.

Text-book: Comstock, *An Introduction to Entomology*.

Prerequisite: Entomology 61 or Entomology 53.

(Not offered in 1943-44.)

63. Advanced Taxonomy.

6 hrs. lect.-lab.

E. H. STRICKLAND.

Classification and biology of, and literature upon, one or more of the major orders. Intending students must have prepared a general collection, which

shall include at least fifty species in each order that they select for special study.

Prerequisite: Entomology 62.

(Not offered in 1943-44.)

64. Advanced Morphology and Physiology. 6 hrs. lect.-lab.

J. H. BROWN.

A detailed study of the comparative anatomy, histology and physiology of insects.

Prerequisite: Entomology 61 or Entomology 53.

101. Taxonomy for Graduate Students. 6 hrs. lab.

E. H. STRICKLAND.

A continuation of studies begun in Entomology 63. Includes the preparation of synoptic tables, descriptions and illustrations of species, study of available literature upon the biology of all species in certain groups and the preparation of at least one systematic article for publication.

(Not offered in 1943-44.)

FIELD CROPS

Junior Courses.

***1. (a) Crop Production.** 1 hr. lect.

A. G. McCALLA.

A general introduction to the principles and practices of crop production.

(b) Crop and Weed Plants, Seeds and Grains. 3 hrs. lect.-lab.

A. G. McCALLA, A. W. HENRY AND B. C. JENKINS.

Identification of important crop and weed plants.

Seeds: brief outline of fertilization and embryogeny; structure, function, germination, dormancy, longevity.

Seeds in commerce: identification, testing, cleaning, storage, legislation, seed growing and inspection.

Grain trade: legislation, grading.

Senior Courses.

***50. Field Crops.** 2 hrs. lect., 3 hrs. lab.

A. W. HENRY.

Grasses, cereals, flax, legumes, sunflowers, roots and potatoes. Botanical structures and relationships; varietal characteristics; adaptations and uses; laboratory practice in identification and classification.

Prerequisite: F.C. 1 or equivalent credit, Bot. 1.

Text-book: Robbins, *Botany of Crop Plants*.

51. Crop Production: Principles and Practice. 3 hrs. lect.

A. G. McCALLA.

Climatic and soil factors; zonation; crop rotations and tillage methods; preparation of seed and seeding; harvesting and storage.

Text-book: Klages, *Ecological Crop Geography*.

53. Experimental Methods. 3 hrs. lect.-lab.

A. G. McCalla.

The design of experiments and statistical analysis of results.

Text-books: Goulden, *Methods of Statistical Analysis*; Leonard and Clark, *Field Plot Technique*.**61. Genetics.** 3 hrs. lect., first half.

J. R. Fryer.

An introductory course giving a survey of the field of genetics and designed to acquaint the student with the laws of variation and heredity with some suggestions of their application to the improvement of plants and animals.

Prerequisite: Math. 44 and Bot. 1.

Text-book: Sinnott and Dunn, *Principles of Genetics*, 3rd edition.**62. Principles and Methods of Plant Breeding.** 3 hrs. lect., sec. half.

J. R. Fryer.

A study of the application of genetic principles to plant breeding, with special reference to the role of hybridization and selection in plant improvement. The technique of plant breeding, plot management, systems of seed distribution, and methods of pure seed production.

Prerequisite: F.C. 50 and F.C. 61.

Text-book: Hayes and Immer, *Methods of Plant Breeding*.**80. Elements of Plant Pathology.** 1 hr. lect.

A. W. Henry.

An introductory study of the nature, cause and control of plant diseases.

Prerequisite: Botany 1.

81. Diseases of Field Crops. 3 hrs. lect., 3 hrs. lab., first half.

A. W. Henry.

Diseases affecting grain, forage and other field crops.

82. Diseases of Horticultural Crops. 3 hrs. lect., 3 hrs. lab., second half.

A. W. Henry.

Diseases affecting potato, vegetable, fruit and ornamental plants.

Advanced and Graduate Courses.**101. Advanced Field Crops.**

J. R. Fryer, A. W. Henry and A. G. McCalla.

A course in which individual students select one or more topics for intensive study in library and laboratory. Weekly meetings for discussion. Credit according to work done, but not more than 6 hours.

102. Special Problems in Field Crops.

Investigation of special problems under the direction of staff members. Credit according to work done, but not more than 6 hours.

111. Cytology and Histology of Crop Plants. 4 hrs. lect.-lab.

J. R. FRYER.

Lectures and laboratory study of chromosomes, mitosis, meiosis, hybrid cytology, polyploidy, etc.; practice in the preparation of materials for cytological and histological study.

Prerequisite: Genetics 51 or F.C. 61.

112. Advanced Genetics and Cytogenetics. 3 hrs.

J. R. FRYER.

Lectures, assignments and conferences for critical study of the theories and recent literature in genetics and cytogenetics.

Prerequisite: Genetics 51 or F.C. 61.

(Not offered in 1943-44.)

131. Plant Pathology. 3 hrs. lect.

A. W. HENRY.

Principles of plant pathology, theoretical and applied.

(Not offered in 1943-44.)

200. Seminar in Field Crops. 1 hr.

A. G. McCALLA, J. R. FRYER AND A. W. HENRY.

Reports by students on the literature of selected topics, with class discussions.

Required every year of all graduate students in field crops.

Graduate Courses.

Students with the necessary training may do work leading to the degree of M.Sc. Courses 51, 53, 61, 62, 81, 82, and advanced courses in field crops, related courses in other departments, and a research project may be selected in consultation with the student's adviser. Owing to limited accommodation for research, students desiring to register for such work should make arrangements well in advance.

Geology**Junior Course.*****1. General Geology. 3 hrs. lect., 2 hrs. lab.**

P. S. WARREN.

Processes of destruction and reconstruction; interpretation of physiographical features with map study; stratigraphic column with index fossils from each period; common minerals and rocks.

Text-books: Longwell, Knopf, Flint, Schuchert, Dunbar, *Outlines of Geology*.

HORTICULTURE**Junior Course.*****1. Horticulture. 3 hrs. lect.**

J. S. SHOEMAKER.

Methods of propagation; hardy fruits; ornamental trees and shrubs; home beautification; windbreaks and shelterbelts; outdoor and indoor flowers; vegetables; cultural practices; judging. The emphasis is placed on practical application.

Senior Courses.

- *51. Horticulture.** 3 hrs. lect.

J. S. SHOEMAKER.

A more detailed study of the topics listed in the foundation course in horticulture.

- 52. Horticulture.** 3 hrs. lect.

J. S. SHOEMAKER.

Familiarity with horticultural literature by reading under guidance and discussion.

Graduate Courses.

- 101. Horticulture—Research Fundamentals.** 3 hrs. lect.

J. S. SHOEMAKER.

Survey and discussion of published material of investigators in the various fields of horticulture. Research phases and principles with regard to hardiness, winter injury, propagation, storage, photoperiodism, improvement of varieties, nutrition and cultural practices.

- 105. Horticulture—Seminar in Horticulture.** 1 hr. lect.

J. S. SHOEMAKER.

Reports on selected topics, with class discussion.

Graduate students who have the necessary training may take work leading to the degree of M.Sc. Courses and a research or thesis project may be selected in consultation with the student's adviser.

MATHEMATICS

Junior Course.

- *4. Elementary Mathematics.** 3 hrs.

The algebra, analytical geometry and trigonometry prerequisite to Mathematics 44, Biometry.

In the Faculty of Agriculture, first year.

Junior and Senior Courses.

- *40. Calculus and Plane Analytical Geometry.** 3 hrs. lect., 2 hrs. lab.

A. J. COOK.

Functions of one variable; plane curves; the processes of differentiation and integration; applications.

Text-book: Miller, *Calculus*.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

- *42. Statistics.** 3 hrs. lect., 3 hrs. lab.

E. W. SHELDON.

(a) Graphs, tables, functions. (b) Frequency distributions, averages, dispersion, trend lines. (c) Moments, normal law, regression, simple correlation, multiple correlation, applications to data in various fields.

Text-book: Yule and Kendall.

Reference books: Thurstone, Mills, Camp.

Prerequisites: Algebra 2, Trigonometry and Analytical Geometry.

***44. Biometry.**

3 hrs.

A. J. COOK.

Graphs, tables and functions; one and two variable frequency distributions and their properties; the normal law; probability; sampling.

Text-book: Yule and Kendall, *Statistics*.

52. Statistics.

3 hrs. lect., 3 hrs. lab.

E. W. SHELDON.

As 42, with additional topics; for honors and graduate students.

62. Probability.

2 hrs. lect., 3 hrs. lab. sec. half.

E. S. KEEPING.

Theory of probability. Treatment of statistical material. Curve fitting, etc. Theory of sampling. Theory of errors and the method of least squares.

Prerequisites: Mathematics 42 or 44, and 55.

MODERN LANGUAGES**Junior Courses.****French*****1.**

A survey of French grammar: Erckmann-Chatrian, *Le Conscriit*, and Labiche, *Le Voyage de Monsieur Perrichon*.

A course for beginners.*

Students in the Faculty of Agriculture with standing in French 3 of high school will not be permitted to register in this course for University credit but may register in French 2.

German***1.**

This course will cover the common inflections and the elementary rules of syntax. It aims to give students a reading knowledge of easy German. Oral work and composition.*

Students in the Faculty of Agriculture with standing in German 3 of high school will not be permitted to register in this course for University credit but may register in German 2.

*Students are warned that in case of transfer to another faculty they may be required to take French 2 or German 2 in order that the credit in French 1 or German 1 may stand.

PHYSICS***1. General Elementary Physics.**

3 hrs. lect., 2 hrs. lab.

Mechanics, properties of matter, heat, magnetism and electricity. Illustrated by experiment.

For all students having complete matriculation but who have not completed Physics 2 of Grade XII.

No student may take this course who has completed Physics 2 of Grade XII.

Text-book: *Classical and Modern Physics*, Harvey E. White.

POLITICAL ECONOMY**Junior Course.**

- *7. Elements of Political Economy. 2 hrs.**

A. STEWART.

A general course with special emphasis on agricultural problems. Open only to students registered in the Faculty of Agriculture.

Senior Courses.

- 68. Economics of Agriculture. 3 hrs.**

A. STEWART.

Economic analysis of the special problems of agriculture; demand for farm products; variations in output and prices; stabilization programs; production costs; supply and price of agricultural land, labor and capital.

Prerequisite: Course 1, 7 or 51.

- 72. Agricultural Marketing. 2 hrs.**

A. STEWART.

Problems of marketing agricultural products. Marketing agencies, their functions and coordination. Marketing costs and margins; prices, quotations and speculation. Organization and operation of local marketing units (elevators, creameries, etc.) and of central co-operative marketing units.

Prerequisite: Course 7.

(Not offered in 1943-44.)

SOILS**Senior Courses.**

- 51. Soils Physics and Management. 2 hrs. lect., 3 hrs. lab., first half.**

J. D. NEWTON AND A. S. WARD.

Origin of soil material; formation; classification, constituents, organic matter; moisture and its control; aeration; temperature; erosion; tillage of dry and irrigated lands; rotations.

Text-book: Lyon and Buckman, *The Nature and Properties of Soils*.

- 52. Soil Fertility and Fertilizers. 2 hrs. lect., 3 hrs. lab., sec. half.**

J. D. NEWTON AND A. S. WARD.

Yields as affected by fertility, rotations and different systems of farming; composition and management of Canadian soils; composition and value of manures and fertilizers.

Text-book: Lyon and Buckman, *The Nature and Properties of Soils*.

- 53. Advanced Fertility. 2 hrs. lect., 3 hrs. lab., first half.**

J. D. NEWTON AND A. S. WARD.

Special work with soils in which the student is interested; pot culture experiments; systematic study of investigational work from various experiment stations.

54. Soil Microbiology. 2 hrs. lect., 3 hrs. lab., sec. half.

J. D. NEWTON AND A. S. WARD.

Soil micro-organisms and factors influencing their activity; decomposition of crop residues and manures; nitrogen fixation and preservation; effect on insoluble plant foods.

55. Irrigation and Drainage. 2 hrs. lect., sec. half.

F. A. WYATT.

Character of water used for irrigation; time and amount of application; measurement and distribution; duty; removal of excess; control of alkali.

Graduate Courses.**130. Plant Food Supplies. 1 hr. lect.**

F. A. WYATT.

Critical study of the world's plant food supplies.

131. Seminar in Soils. 1 hr. lect.

J. D. NEWTON.

Reports by students and instructors on the literature of selected topics, with class discussion. Required of all graduate students in soils.

Graduate students who have had the necessary training may take work leading to the degree of M.Sc. Graduate courses in soils, related courses in other departments, and a research project in field work covered by the list of soil courses may be selected in consultation with the student's adviser.

ZOOLOGY**4. Elementary Comparative Anatomy (Agriculture).**

3 hrs. lect., 3 hrs. lab., sec. half.

R. B. MILLER.

Comparative anatomy of the vertebrates with special reference to mammals; parasitic invertebrates; development and evolution.

FACULTY OF
APPLIED SCIENCE

FACULTY OF APPLIED SCIENCE

Matriculation, page 28.

General University regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
Medical Service	5.00
Caution Money	5.00
Library	5.00

Applied Science (Tuition):

(a) Instruction per session	160.00
If paid in instalments, \$3.50 additional.	
Survey School fee (second year Civil and Mining)	20.00
(Those students continuing with third year Mining or Civil will have this fee refunded.)	
(b) Special and partial students, instruction per course, per session	30.00
Laboratory fee \$5.00 per course, maximum \$10.00.	
(c) <i>Arts and Applied Science:</i>	
Instruction per session, first, second and third years	110.00
If paid in instalments, \$2.50 additional.	
Laboratory fee \$5.00 per course, maximum \$10.00.	
Instruction per session, subsequent years	160.00
If paid in instalments, \$3.50 additional.	

FACULTY OF APPLIED SCIENCE

The University offers undergraduate courses in Applied Science leading to the B.Sc. degree in engineering (civil, chemical, electrical, mining). In addition courses including certain special combinations of studies may be given to those students who are looking forward to the professions of engineering physics or engineering chemistry, and have shown particular ability and aptitude in these and affiliated subjects.

Graduate work also is offered leading to the M.Sc. degree.

The attention of new students is called to the combined course leading to the degree of B.A., B.Sc., details of which are given on page 83.

For information about all of the above courses students should consult the Dean of the Faculty of Applied Science.

The B.Sc. DEGREE IN ENGINEERING

The requirements of the first year of the four engineering divisions are common to all. In the second year a choice is offered between (civil and electrical) and (chemical and mining). In this year the requirements for civil and electrical are almost identical and likewise in chemical and mining. These junior years are designed to lay the general foundation in mathematics, drawing, and in physical and chemical sciences, necessary for specialization in the various branches of engineering in the last two years.

Students of this university who may wish to continue their study in branches of engineering, in which the equipment for third and fourth year work has not been completed, may finish their courses at certain universities in Eastern Canada, where according to arrangement, they will be admitted *ad eundem statum*.

Former students of this Faculty who have been absent for one or more years should consult the Dean before registering again in order to fit their program of studies to the new curriculum.

Promotion to the third year in Applied Science is granted only to students who have passed all second year subjects required, or all but one subject and have an average standing for the year of 65%.

Students who return to Applied Science after having failed to qualify for promotion to the third year are required to take an additional second year. In this additional second year, the student will repeat the failed subjects and undertake a sufficient number of other courses acceptable to the Faculty to make up a program equivalent to four courses of three hours lectures, or three hours lectures plus laboratory per week. The student will be required to make a satisfactory record in this entire program.

Students who fail to qualify for promotion to the third year after putting in three academic sessions will be refused further registration in Applied Science.

According to a regulation of the Department of Electrical Engineering no student may register in E.E. 51 and 52 (third year) who has a failure outstanding in the prerequisites Mathematics 25 or Physics 46, and no student may register in any

fourth year Electrical Engineering subject who has a failure outstanding in E.E. 51 or E.E. 52.

Registration in the fourth year of Mining Engineering is restricted to students who have passed all third year subjects required.

Students who have to repeat their third or four year are required to register in their failed subjects and in sufficient additional subjects acceptable to the Faculty to make up a program equivalent to four courses of three hours lectures, or three hours lectures plus laboratory, per week, and to make a satisfactory record in the entire program.

These regulations are administered by the Promotions Committee of the Faculty of Applied Science. Students repeating their second, third or fourth year must consult the Promotions Committee when registering.

ENGINEERING—FIRST YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Inorganic Chemistry	Chem. 40	3	3	2	3	163
Science and Engineering	C.E. 10	1	...	...	...	166
Mechanical Drawing	Draw. 2 .....	...	3	...	3	169
Descriptive Geometry	Draw. 4	2	3	2	3	170
Element. Math. Analysis	Math. 21	2	2	2	2	175
Element. Mechanics	Math. 22	3	...	3	2	176
Physics	Physics 21	3	2	3	2	179
*Surveying	C.E. 5 .....	...	...	2	...	175
*Survey Field Work	C.E. 6 .....	...	...	...	...	175
Physical Education	Phys. Ed.	2	...	2	...	

Exemption from attendance at Survey School may be granted in special cases to those students whose previous experience or engagement in similar work is satisfactory to the Faculty Council.

*Credits for these courses will be included with those of the following year.

A—CIVIL ENGINEERING
JUNIOR COURSES—SECOND YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Statics	C.E. 1	2	...	2	...	165
Mapping	C.E. 2 .....	...	3	...	...	165
Materials of Construction	C.E. 3	2	...	2	...	165
Strength of Materials	C.E. 11 and 13	2½	3/2	2½	3/2	166
Drawing	Draw. 6	1	3	1	3	170
Geology	Geol. 32	3	...	2	3	174
Calculus	Math. 25	3	...	3	...	176
Mechanics	Math. 26	2	2	2	...	176
Physics	Phys. 46	3	2	3	2	179
*Survey Field Work	C.E. 7 .....	...	...	...	...	165
*Applied Astronomy	C.E. 8 .....	...	...	...	...	166

Exemption from attendance at survey school may be granted in special cases to those students whose previous experience or engagements in similar work is satisfactory to the Faculty Council.

Students in civil engineering are strongly advised to work in a drafting office during one summer, in order to gain necessary practical experience.

*Credits for these courses will be included with those of the following year.

SENIOR COURSES—THIRD YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Elements of Soil Mechanics	C.E. 51 .....	...	...	2	...	167
Hydraulics	C.E. 55 and 69	2½	3/2	2½	3/2	167
Elements of Mech. Eng.	C.E. 57 and 84	2½	3/2	2½	3/2	167
Elements of Struct. Design	C.E. 62	2	3	2	2	168
Engineering Construction	C.E. 77	2	3	...	...	169
Hydrology and Water Supply Engineering	C.E. 86	2	3	2	3	169
Strength of Materials	C.E. 83 .....	...	...	2	...	169
Elements of Elec. Eng.	E.E. 53	2	3/2	2	3/2	171
Elementary Hygiene	Hyg. 51	1	...	...	...	175
Principles of Pol. Ec.	Pol. Ec. 51	3	...	3	...	180

SENIOR COURSES—FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Foundations	C.E. 52	2	3	2	...	167
Theory of structures	C.E. 53	3	...	3	...	167
Design of Earth Structures	C.E. 54 .....	...	...	2	3	167
Structural Design	C.E. 63	2	3	2	3	168
Materials of Construction	C.E. 66	2	3	...	3	168
Water Power Engineering	C.E. 68 .....	...	...	3	3	168
Land Transportation	C.E. 74	3	3	2	...	168
Sewerage	C.E. 82	2	3	...	...	169
*Option or Thesis .....	.....	3	...	3	...	169

*To be approved by the department of civil engineering, equivalent to 3-0-3-0.

Students looking forward to a career in city management should include a course in Municipal Accounting, $\frac{1}{2}$ term 3 hrs. per week.

B—CHEMICAL ENGINEERING

JUNIOR COURSES—SECOND YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Organic Chemistry	Chem. 42	3	3	3	3	163
Statics	C.E. 1	2	...	2	...	165
Mapping	C.E. 2 .....	...	3	...	...	165
Materials of Construction	C.E. 3	2	...	2	...	165
Strength of Materials	C.E. 11 and 13	2½	3/2	2½	3/2	166
Geology	Geol. 30	3	...	...	3	174
Calculus	Math. 25	3	...	3	...	176
Physics	Physics 46	3	2	3	2	179
Political Economy	Pol. Ec. 11	3	...	3	...	180
†*Shop Work	E.E. 31a .....	...	...	...	...	171
*Fire Assaying	M.E. 41 .....	...	...	...	...	176

†E.E. 31a, for Chemical Engineering students, as E.E. 31 less electrical wiring.

*These courses are given during the Survey School period and credits will be included with those of the following year.

SENIOR COURSES—THIRD YEAR

Credit for Chem. 63 must be obtained before graduation. See Fourth Year.

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Hydraulics	C.E. 55 and 69.....	2½	3/2	2½	3/2	167
Physical Chemistry	Chem. 54	3	3	3	3	163
Quantitative Analysis	Chem. 58	2	6	2	6	163
*Industrial Plant Visits	Chem. 64 .....	...	...	...	...	164
Mineralogy	Geol. 52	2	3	2	3	175
Elementary Hygiene	Hyg. 51	1	...	...	...	175
Elements of Elect. Engineering	E.E. 53	2	3/2	2	3/2	171
Elements of Chem. Engineering	Ch.E. 61	2	3/2	2	3/2	170

SENIOR COURSES—FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Elements of Mech. Engineering	C.E. 57 and 84.....	2½	3/2	2½	3/2	167
Advanced Chem. Engineering....	Ch.E. 81	3	3	3	3	170
Metallurgy and Metallography...	M.E. 91 and 93.....	3	3	3	3	178
Industrial Chemistry	Chem. 62	3	...	3	...	164
Practical Experience	Chem. 63 .....	...	...	...	...	164
*Industrial Plant Visits	Chem. 64 .....	...	...	...	...	164
Organic Chemistry	Chem. 102	3	6	3	6	93
or						
Physical Chemistry	Chem. 103	3	6	3	6	164
or both						
†Adv. Quan. Anal.	Chem. 105 .....	...	...	2	6	93
and						
†Adv. Inorg. Chem.	Chem. 106	2	6	...	...	94
or both						
‡Colloid Chem. & Surface Chem.	Chem. 107	2	6	...	...	94
and						
‡Electro Chem.	Chem. 108 .....	...	...	2	6	94

*Offered in alternate years when students of third and fourth years take it together.

†Available 1944-45, and alternate sessions thereafter.

‡Available 1943-44, and alternate sessions thereafter.

C—ELECTRICAL ENGINEERING**JUNIOR COURSES—SECOND YEAR**

SUBJECTS	Course No.	First		Sec.		Pge.
		Lect.	Half Lab.	Lect.	Half Lab.	
Statics	C.E. 1	2	...	2	...	165
Mapping	C.E. 2 .....	...	3	...	...	165
Materials of Construction	C.E. 3	2	...	2	...	165
Strength of Materials	C.E. 11 and 13	2½	3/2	2½	3/2	166
Drawing	Draw. 6	1	3	1	3	170
Geology	Geol. 30	3	...	...	3	174
Calculus	Math. 25	3	...	3	...	176
Mechanics	Math. 26	2	2	2	...	176
Physics	Phys. 46	3	2	3	2	179
*Shop Work	E.E. 31 .....	...	...	...	...	171

*Credits in this course will be included with those of the following year.

SENIOR COURSES—THIRD YEAR

SUBJECTS	Course No.	First		Sec.		Pge.
		Lect.	Half Lab.	Lect.	Half Lab.	
Hydraulics	C.E. 55	2	...	2	...	167
Elements of Mech. Eng.	C.E. 57 and 84	2½	3/2	2½	3/2	167
Principles of Elec. Eng.	E.E. 51 and 52	3	5	3	5	171
Machine Design	E.E. 54	2	...	2	...	171
Engineering Electronics and Electrical Instruments	E.E. 55	2	...	2	...	172
Elementary Hygiene	Hyg. 51	1	...	...	...	175
Higher Mathematics for Engineers	Math. 57a	2	...	2	...	176
Electrical Physics	Phys. 52	2	3	2	3	179
Principles of Pol. Ec.	Pol. Ec. 51	3	...	3	...	180

SENIOR COURSES—FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Electrochemistry	Chem. 60 .....	...	...	3	...	164
Principles of Elec. Eng.	E.E. 76 and 77	3	6	3	6	172
Electrical Power Transmission and Distribution	E.E. 78	2	...	2	...	172
Electrical Machine Design	E.E. 79	1	3	1	3	173
Electrical Communication	E.E. 80	2	3/2	2	3/2	173
Problems	E.E. 78, 80, 81 & 84 .....	...	2	...	2	173
Fundamentals of Electrical Engineering	E.E. 82 .....	...	...	2	...	173
Power Plant Design	E.E. 83	2	...	...	...	173
Electron Theory	Phys. 55	3	...	...	...	180
and Applications of Electrical Power	E.E. 81	2	3/2	2	3/2	173
or Short and Ultra-Short Wave Radio	E.E. 84	2	3/2	2	3/2	174

D—MINING ENGINEERING

JUNIOR COURSES—SECOND YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Political Economy	Pol. Ec. 11	3	...	3	...	180
Statics	C.E. 1	2	...	2	...	165
Mapping	C.E. 2 .....	...	3	...	...	165
Materials of Construction	C.E. 3	2	...	2	...	165
Strength of Materials	C.E. 11 and 13	2½	3/2	2½	3/2	166
Geology	Geol. 32	3	...	2	3	174
Calculus	Math. 25	3	...	3	...	176
Fire Assaying	M.E. 41	1	3/2	...	3/2	176
Physics	Phys. 46	3	2	3	2	179
*Survey Field Work	C.E. 7 .....	...	...	...	...	165
*Applied Astronomy	C.E. 8 .....	...	...	...	...	166

Exemption from attendance at survey school may be granted in special cases to those students whose previous experience or engagements in similar work is satisfactory to the Faculty Council.

Credits for M.E. 77 must be obtained before graduation. See Fourth Year.

SENIOR COURSES—THIRD YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Hydraulics	C.E. 55 and 69	2½	3/2	2½	3/2	167
Elements of Mech. Eng.	C.E. 57 and 84	2½	3/2	2½	3/2	167
Quantitative Analysis	Chem. 58	2	6	2	6	163
Elements of Elec. Eng.	E.E. 53	2	3/2	2	3/2	171
Mineralogy	Geol. 52	2	3	2	3	175
Elements of Hygiene	Hyg. 51	1	...	...	...	175
Ore Dressing	M.E. 81	2	3/2	2	3/2	178
Principles of Mining	M.E. 72	2	3/2	2	3/2	177
**Mine Survey School	M.E. 57 .....	...	...	...	...	177

**Offered in alternate years when students in third and fourth years take it together.

*Credits for these courses will be included with those of the following year.

SENIOR COURSES—FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Petrology	Geol. 50 .....	...	3	...	...	175
*Petrology	Geol. 54	3	3	3	3	175
Mineral Deposits	Geol. 60	3	...	3	3	175
†Mine Survey School	M.E. 57 .....	...	...	...	...	177
Mining Methods and Design...	M.E. 73 and 74	3	3	3	3	177
Practical Experience	M.E. 77 .....	...	...	...	...	177
Metallurgy and Metallography	M.E. 90 and 92	3	3	3	3	178
Two electives from the follow- ing:						
Mine Design	M.E. 75 .....	...	3	...	3	177
Ore Dressing & Mill Design...	M.E. 83	3	3	...	3	178
**Metallurgy	M.E. 86 .....	...	3	...	3	
**Metallography	M.E. 89 .....	...	3	...	3	

*Geol. 54 is an optional alternative to both Geol. 50 and one of the two electives if the facilities of the department of geology permit.

Students who desire to prepare for coal mining may substitute Geol. 55 stratigraphy, for Geol. 54, but are required to take Geol. 50.

†Offered in alternate years when students in third and fourth years take it together.

**Not offered 1943-44.

THE B.Sc. DEGREE IN ENGINEERING PHYSICS

This degree is open to students who during the first year in the University have shown a special aptitude for physics and mathematics. A student entering this course will normally have completed one year in the Faculty of Applied Science. The course is also open to students from the Faculty of Arts and Science whose record in the first year in the University is of a sufficiently high standard in physics and mathematics. There is a certain flexibility in the program to permit of a student's following a particular line of study.

DETAILS OF COURSES

For particulars regarding members of staff, see page 11.

*Attendance courses, see page 53.

CHEMISTRY***40. Inorganic Chemistry.**

3 hrs. lect. 3 hrs. lab. first half, 2 hrs. lect. 3 hrs. lab. sec. half.

O. J. WALKER AND N. E. PERKINS.

Lectures: Chemistry of the metals and their compounds. The principles of chemical analysis.

Laboratory: Qualitative inorganic analysis.

Text-books: Philbreck and Holmyard, *Theoretical and Inorganic Chemistry*; Yoe, *Chemical Principles*; Walton and Sorum, *Introduction to Qualitative Analysis*.

Prerequisite: Chemistry 1 or complete Grade XII Chemistry.

***42. Organic Chemistry.**

3 hrs. lect., 3 hrs. lab.

R. B. SANDIN.

Lectures: An introduction to the aliphatic and the aromatic series.

Laboratory: The preparation of some organic compounds.

Text-book: Whitmore, *Organic Chemistry*.

Laboratory Manual: Fisher, *Laboratory Manual of Organic Chemistry*.

Prerequisite: Chem. 1 or its equivalent.

54. Elementary Physical Chemistry.

3 hrs. lect., 3 hrs. lab.

J. L. MORRISON.

Lectures: Fundamental concepts of matter in relation to energy; thermochemistry, properties of gases, liquids and solids; solutions, equilibrium, phase rule, electrolytes, electromotive force, colloids, photochemistry.

Laboratory: Physico-chemical measurements.

Text-books: Gucker and Meldrum, *Physical Chemistry*; Findlay, *Practical Physical Chemistry*; Hodgson and Lang, *Handbook of Chemistry and Physics. Laboratory Experiment*.

Prerequisite: Chem. 40 and Physics 40.

58. Quantitative Analysis.

2 hrs. lect., 6 hrs. lab.

O. J. WALKER AND S. G. DAVIS.

Lectures: Principles and methods of quantitative analysis.

Laboratory: Gravimetric, volumetric, colorimetric, electro and gas analysis; analysis of ores, fuels, water and food.

Text-books: Fales and Kenny, *Inorganic Quantitative Analysis*.

References: Treadwell & Hall, *Analytical Chemistry, Vol. II*; A.O.A.C., *Methods of Analysis*; Kalthoff and Sandell, *Quantitative Inorganic Analysis*.

Prerequisite: Chemistry 40.

60. Electrochemistry.

3 hrs. lect., sec. half.

E. H. BOOMER.

For students in Electrical Engineering.

Lectures: Chemical thermodynamics; the theory of solutions; electrolytes; electrolysis; electrodes and electromotive force; galvanic cells; batteries, accumulators; electroplating; electrometallurgy; industrial electrochemistry.

Text-book: Thompson, *Theoretical and Applied Electrochemistry*.

Prerequisite: Chem. 40.

62. Industrial Chemistry.

3 hrs.

O. J. WALKER.

Description of industrial processes in chemical and allied chemical industries, unit operations, stoichiometrical calculations, visits to local plants, reports.

Text-book: Read, *Industrial Chemistry*.

Prerequisites: Chemistry 42 and 58.

63. Practical Experience.

O. J. WALKER.

Students in Chemical Engineering are required to find employment in some industrial plant involving chemical applications for at least one summer prior to graduation. A satisfactory report on the principles involved in the industry so chosen must be presented to the Department of Chemistry for approval.

64. Industrial Tour.

Students in 3rd or 4th year Chem. Eng. A trip to industrial plants of about 10 days is taken on alternate years immediately after spring examinations.

103. Advanced Physical Chemistry.

3 hrs. lect., 6 hrs. lab.

E. H. BOOMER.

Lectures: Theoretical chemistry with special attention to the dynamical theory of matter and the laws of thermodynamics and their application to gases, liquids, and solids; the theory of solutions; reaction velocity, catalysis and photochemistry; thermochemistry, chemical equilibrium and the phase rule; atomic and molecular structure.

Text-book: Glasstone, *Text-book of Physical Chemistry*.

Laboratory: Physico-chemical measurements.

Text-book: Daniels, Mathews and Williams, *Experimental Physical Chemistry*.

Prerequisites: Chemistry 42, 54; Mathematics 55.

Co-requisite: Physics 46.

Journal Club.

Attendance at the Journal Club, which meets once a week, is required of fourth year students and graduate students.

CIVIL AND MUNICIPAL ENGINEERING

Junior Courses.

***1. Applied Mechanics (Statics).** 3 hrs. lect.

W. W. PRESTON AND L. A. THORSSEN.

Fundamental principles of statics; centres of gravity; moments of inertia; analytical and graphical solutions applied to determination of stresses in simple frames.

Text-book: Timoshenko and Young, *Engineering Mechanics, Statics* (McGraw-Hill).

Prerequisites: Mathematics 21, 22.

***2. Mapping.** 3 hrs. lab., first half.

L. A. THORSSEN AND ASSISTANT.

Draughting room exercises in computations and plotting of survey notes including mine survey problems; construction and use of topographic maps; the planimeter.

Prerequisite: C.E. 5.

***3. Materials of Construction.** 2 hrs. lect.

R. S. L. WILSON AND I. F. MORRISON.

General characteristics, manufacture and use of woods, metals and their ores, iron, steels, other metals and alloys, limes and plasters, cements, mortars, concrete, clay products, glass, building stone, masonry construction, asphalts, bitumens, etc.

Text-book: Johnson, *Materials of Construction* (Wiley).

***5. Surveying.** 2 hrs., sec. half.

L. A. THORSSEN.

The theory and practice of plane and topographic surveying including construction, use and care of instruments; computation of areas; methods of topographic surveying; route surveys including curve and earthwork problems; mine surveys; land survey system.

Text-books: Breed & Hosmer, *Surveying, Vol. I, Elementary* (Edition 1938, Wiley); Allen, *Field and Office Tables* (McGraw-Hill).

This course is resumed and given daily during Survey Field Work, C.E. 6.

***6. Survey Field Work.** 4 weeks at end of sec. half.

R. S. L. WILSON AND STAFF.

Field work, including chaining, rodding, levelling, transit work, plotting of field notes.

Co-requisite: C.E. 5.

The field work of this course is available to students in Agriculture.

Exemption from attendance at survey field work may be granted to those students whose previous experience or engagement on similar work is satisfactory to the faculty council.

***7. Survey Field Work.** 4 weeks at end of sec. half.

R. S. L. WILSON AND STAFF.

Field work, including adjustments of instruments; railway surveys; cross-sectioning; plane table survey; determinations of azimuth, longitude, latitude

and time by solar and stellar observations; base line measurements; angular measurements. Exemption from attendance at survey field work may be granted to those students whose previous experience or engagement on similar work is satisfactory to the faculty council.

***8. Applied Astronomy.** 4 weeks at end of sec. half.

R. M. HARDY.

Daily lectures during the period of survey field work (C.E. 7) are given on practical astronomy and geodesy, including problems and methods of observing for latitude, time, longitude, and azimuth, sufficient to meet the needs of the practical surveyor.

Text-book: Hosmer, *Astronomy* (Wiley).

Prerequisite: C.E. 6.

***10. Science and Engineering** 1 hr. lect., first half.

GUEST SPEAKERS.

A series of lectures on scientific and engineering topics, indicating the important relations between science and modern industry, intended to acquaint students with the activities of engineers in various branches of the profession and thus assist them in selecting a particular course of study.

***11. Strength of Materials.** 2 hrs. lect.

I. F. MORRISON AND R. M. HARDY.

Lectures and exercises on the strength of materials. Theory is illustrated by a large number of practical problems, including applications to columns, beams, girders, continuous girders and shafting.

Text-books: Timoshenko & MacCullough, *Elements of Strength of Materials*, Van Nostrand.

Prerequisites: Math. 21, 22.

Co-requisites: C.E. 1, 13.

***13. Strength of Materials Laboratory.**

1 hr. lect., 3 hrs. lab. alternate weeks.

I. F. MORRISON AND ASSISTANTS.

Laboratory exercises to illustrate the physical properties of materials including the testing of ordinary engineering materials in tension, compression, bending, twisting, hardness and impact.

Text-book: Morrison, *Notes on the Science of Solid Materials*.

Co-requisite: C.E. 11.

Senior Courses.

51. Elements of Soil Mechanics. 2 hrs. lect., 2nd half.

I. F. MORRISON.

Fundamental principles of soil mechanics, including origin, classification, and structure of soils; soil moisture, consistency and capillarity.

52. Foundations and Retaining Walls. 2 hrs. lect.; 3 hrs. lab., 1st half.

I. F. MORRISON.

Distribution of pressure under foundations, soil exploration methods and field tests, proportioning footings, pile foundations, landslides, earth pressures, theory of consolidation.

Text-book: Krynine, *Soil Mechanics* (McGraw-Hill).

Prerequisite: C.E. 51.

53. Theory of Structures.

3 hrs. lect.

R. M. HARDY.

Stress analysis of trusses and girders under static and moving loads including a study of conventional loadings; influence lines; lateral and portal bracing; space frames; deflections; elementary theory of indeterminate structures.

Prerequisites: C.E. 1, 11.

54. Design of Earth Structures. 2 hrs. lect., 3 hrs. lab., 2nd half.

R. M. HARDY.

Application of soil mechanics to design and construction of highway embankments and earth dams, including seepage and drainage, soil compaction, frost action, and soil stabilization.

55. Hydraulics.

2 hrs. lect.

Fundamental principles considered and applied to problems on discharge from orifices, notches, weirs, pipes and open channels; theory of impact of jets, turbines, pumps, hydraulic transmission of power, accumulators and lifts; discussion of hydrology; stream measurements and water-power development.

Text-book: Russell, *Textbook on Hydraulics* (Holt).

Co-requisite: C.E. 69.

***69. Hydraulic Laboratory.** 1 hr. lect., 3 hrs. lab., alternate weeks.

..... AND ASSISTANTS.

Laboratory exercises in hydraulics, including experiments on small orifices, weirs and notches, flow through pipes, impact of jets, and tests of hydraulic machines, etc.

Co-requisite: C.E. 55.

57. Elements of Mechanical Engineering.

2 hrs. lect.

Laws of thermodynamics; characteristic curves of a steam turbine; condition curves; regenerative cycle; heat balance of the turbine and station; steam boilers and auxiliary equipment; cost of power; internal combustion engines; gas producer; air compressor; refrigeration and legislation.

Text-book: Morse, *Power Plant Engineering and Design* (Van Nostrand).

References: Goudie, *Ripper's Steam Engine* (Longmans, Green); Gaffert, *Steam Power Stations* (McGraw-Hill).

Prerequisites: Physics 46, Mathematics 25, and Chemistry 40.

Co-requisite: C.E. 84.

***84. Mechanical Engineering Laboratory.**

1 hr. lect., 3 hrs. lab., alternate weeks.

Performance tests of steam engine generators, boilers, internal combustion engines, air compressors, fans and other auxiliary power station equipment; visits to power stations.

Reference: Smallwood and Keator, *Mechanical Laboratory Methods of Testing Machines and Instruments* (Van Nostrand):

Prerequisites: Physics 46, Mathematics 25, and Chemistry 40.

Co-requisite: C.E. 57.

62. Structural Design.

2 hrs. lect., 3 hrs. lab.

I. F. MORRISON.

Practical design of steel structures including details; loads and working stresses; truss and plate-girder theory and design; elementary reinforced concrete design. Design problems including the preparation of working drawings are carried out in the drafting room.

Text-book: Young, *Structural Problems* (Wiley).

Prerequisite: C.E. 11.

63. Structural Design.

2 hrs. lect., 3 hrs. lab.

R. M. HARDY.

Reinforced concrete buildings including flat slab construction. Floor systems for bridges. Reinforced concrete arches, tanks, foundations and retaining walls. Detailed calculations and drawings are worked out in the drafting room.

Prerequisite: C.E. 62.

Co-requisite: C.E. 53.

66. Materials of Construction.

2 hrs. lect., first half; 3 hrs. lab.

L. A. THORSSEN AND ASSISTANTS.

Materials for concrete; proportioning of concrete mixtures; special treatments and uses of concrete; field methods in concrete practice. Study of materials, design of reinforcements, proportioning of mix, construction and testing of reinforced concrete beam.

Prerequisite: C.E. 11.

68. Water Power Engineering

3 hrs. lect., 3 hrs. lab., second half.

History; available power; regulation of stream flow; location of power site; design of controlling structures and hydraulic machinery; accessories; economics.

Reference: Creager and Justin, *Hydro-Electric Engineers Handbook* (Wiley).

Prerequisite: C.E. 55.

74. Land Transportation.

3 hrs. lect., 3 hrs. lab., 1st half; 2 hrs. lect., 2nd half.

R. S. L. WILSON AND L. H. McMANUS.

Financing of railway and highway projects; economics of location, construction, operation and maintenance; construction details; methods of location; care of city streets.

Text-books: Bruce, *Highway Design and Construction* (Int. Textbook Co.); Webb, *Railroad Construction* (Wiley).

77. **Engineering Construction.** 2 hrs. lect., 3 hrs. lab., first half.
R. S. L. WILSON.

Quantities surveying; estimates; organization of construction forces and equipment; economics.

82. **Sewerage.** 2 hrs. lect., 3 hrs. lab., first half.
D. B. MENZIES.

Separate and combined systems; collection methods, pipe layout and details; purification and dilution treatments; laws and regulations; estimates; operation. Text-book: Metcalf and Eddy, *Sewerage and Sewage Disposal* (McGraw-Hill).

Prerequisite: C.E. 55.

83. **Strength of Materials.** 2 hrs. lect., sec. half.
L. A. THORSEN.

Applications of elementary theorems in elasticity; elastic stability of columns and beams, beams on elastic foundations, thick cylinders, domes and tanks. Text-book: Timoshenko, *Strength of Materials, Vol. II* (Constable).

Reference: Timoshenko, *Theory of Elastic Stability* (McGraw-Hill).

Prerequisite: C.E. 11.

85. **Thesis.** 3 hrs.
Selected problems.

86. **Hydrology and Water Supply Engineering.** 2 hrs. lect., 3 hrs. lab.
..... AND D. B. MENZIES.

The distribution and occurrence of water in nature and its relation to hydraulic engineering. Precipitation, percolation, evaporation, transpiration, run-off, river discharge, storage, etc.

Quantity, quality, and pressure requirements; collection and intake works; purification works; distribution system and details; designs and estimates; maintenance and operation.

Text-book: Babbitt and Doland, *Water Supply Engineering* (McGraw-Hill).

References: Meyer, *Elements of Hydrology* (Wiley); Hoyt and Grover, *River Discharge* (Wiley); Creager and Justin, *Hydro-Electric Engineers Handbook* (Wiley).

101, 102, 103, 104. Advanced Courses.

Theory of structures, structural design, strength of materials and theory of elasticity, hydraulics. Particulars of these courses can be obtained from the department.

Drawing

- *2. **Elementary Mechanical Drawing.** 3 hrs.

W. W. PRESTON AND ASSISTANTS.

Freehand single-stroke lettering, use of instruments, geometric drawing, orthographic views, isometric drawing, conventions, dimensions, simple detail and assembly drawings, tracing and blue printing.

Text: Giesecke-Mitchell-Spencer, *Technical Drawing* (Macmillan).

Co-requisite: Draw. 4.

***4. Descriptive Geometry.** 2 hrs. lect., 3 hrs. lab.

W. W. PRESTON AND ASSISTANTS.

Orthographic projection of points, lines, plane figures, curved surfaces and solids on any image plane, true views by projection and by revolution, engineering problems dealing with points, lines, planes, curved surfaces and solids in space.

Text: Warner, *Applied Descriptive Geometry*.

Co-requisite: Draw. 2.

6. Drawing. 1 hr. lect., 3 hrs. lab.

W. W. PRESTON AND ASSISTANTS.

Technical drawing, tracing, blue printing and checking. Projects include charts, technical sketches, original drawings, preliminary layouts, working drawings, assemblies and erection diagrams, oblique and isometric drawings. Applications to various branches of industry including wood framing, sheet-metal work, steel plate work, machine practice, and structural practice with rivetting and welding.

Text: Giesecke-Mitchell-Spencer, *Technical Drawing* (Macmillan); *Steel Handbook*.

Reference: Warner, *Applied Descriptive Geometry*.

Chemical Engineering

Committee: E. H. Boomer, K. A. Clark, G. W. Govier.

61. Elements of Chemical Engineering.

2 hrs. lect.; 3 hrs. lab., alternate weeks.

G. W. GOVIER.

An introduction to the unit operations of chemical engineering—handling of fluids and solids; disintegration; mixing; filtration and other mechanical separational operations.

Text-book: Walker, Lewis, McAdams, and Gilliland, *Principles of Chemical Engineering*.

References: Badger and McCabe, *Elements of Chemical Engineering*; Perry, *Chemical Engineers Handbook*; selected current journals.

81. Advanced Chemical Engineering. 3 hrs. lect., 3 hrs. lab.

G. W. GOVIER.

A continuation of Ch.E. 61—heat transfer; evaporation; crystallization; humidification; drying; absorption; extraction; distillation. Design of related equipment.

Elements of plant design—location; layout; instrumentation; cost estimation. Text-book: Walker, Lewis, McAdams, and Gilliland, *Principles of Chemical Engineering*.

References: Perry, *Chemical Engineers Handbook*; McAdams, *Heat Transmission*; Vilbrandt, *Chemical Engineering Plant Design*; selected current journals.

ELECTRICAL ENGINEERING

- 31. Shop Work** 4 weeks at end of sec. half.
Electrical wiring and/or fitting and turning at the Edmonton Technical High School.
- 31a. Shop Work.** 2 weeks at end of sec. half.
Fitting and turning at the Edmonton Technical High School. For second year Chemical Engineering students.
- 51. Principles of Electrical Engineering.** 3 hrs. lect.
R. E. PHILLIPS.
C.g.s. and m.k.s. units. Fundamental laws of electro-statics, electro-magnetism, and current circuits. Electro-magnets. Direct-current generators and motors. Alternating-current circuits, single-phase and polyphase. Non-sinusoidal wave-forms.
Text-books: Cullwick, *The Fundamentals of Electro-Magnetism*; Langsdorf, *Principles of Direct Current Machines*.
Reference books: Langsdorf, *Theory of Alternating Current Machinery*; Lawrence, *Theory of Alternating Currents*; Dover, *Principles and Practice of Alternating Currents*; Vinal, *Storage Batteries*.
Prerequisites: Math. 25 and Physics 46.
E.E. 51 and 52 are prerequisites to all fourth year electrical courses.
- *52. Electrical Engineering Laboratory.** 5 hrs. lab.
R. E. PHILLIPS.
Problem work two hours and laboratory experiments three hours per week. The determination of the characteristics, regulation and efficiency of direct current machines. The use of measuring instruments, controlling and protective devices.
References: Ricker and Tucker, *Electrical Engineering Laboratory Experiments*; S. P. Smith, *Problems in Electrical Engineering*.
Prerequisites: Math. 25 and Physics 46.
- 53. Elements of Electrical Engineering.** 2 hrs. lect., 3/2 hrs. lab.
J. W. PORTEOUS.
The laws of electromagnetism; continuous and alternating currents in various circuits; characteristics of direct and alternating current machinery with a consideration of the class of work to which each machine is suited; the fundamental principles of power distribution. The laboratory course includes the determination of the characteristics and efficiency of various machines; the use of measuring instruments, controlling and protecting apparatus.
Text-book: Kraehenbuehl and Faucett, *Circuits and Machines in Electrical Engineering*.
- 54. Machine Design.** 2 hrs. lect.
W. E. CORNISH.
Consideration of the energy changes in the machine and the maximum forces resulting therefrom. Proportioning the various parts to withstand these forces.

Reference: Hyland and Kommers, *Machine Design*.

Prerequisites: C.E. 11, C.E. 13, Drawing 6.

55. Engineering Electronics and Electrical Instruments. 2 hrs. lect.

J. H. WAGHORNE.

- (a) The characteristics and applications in electrical engineering of electronic devices such as vacuum and gas-filled thermionic tubes, photo-cells, and cathode-ray oscillographs. 1 hr. lect.

Text-book: Millman and Seely, *Electronics*.

J. H. WAGHORNE.

- (b) Moving coil, moving iron, and electro-dynamometer instruments. Fault location in cables. Electro-mechanical oscillographs. Induction-type instruments and relays. Frequency and power-factor meters. Synchroscopes. 1 hr. lect.

Text-book: Laws, *Electrical Measurements*.

76. Principles of Electrical Engineering. 3 hrs. lect.

W. E. CORNISH.

A detailed study and analysis of the theory and characteristics of alternating current and converting machines, including the alternator, transformer, synchronous motor, induction motor, synchronous converter, mercury-arc rectifier, alternating current commutator motors and phase advancers.

Reference books: Langsdorf, *Theory of A.C. Machinery*; Puchstein and Lloyd, *Alternating Current Machines*; Marti and Winograd, *Mercury Arc Rectifiers*.

E.E. 76 and 77 are co-requisite to all fourth year electrical subjects.

***77. Electrical Engineering Laboratory. 6 hrs. lab.**

R. E. PHILLIPS.

Problem work three hours and laboratory experiments three hours per week. The experiments are chosen mainly to illustrate the theory of E.E. 76 and when possible the results of experiments are checked by calculations from machine data.

References: Ricker and Tucker, *Electrical Engineering Laboratory Experiments*; S. P. Smith, *Problems in Electrical Engineering*.

Students in E.E. 77 are required to make a detailed study of some special engineering problem and submit their results in the form of a thesis.

78. Electrical Power Transmission and Distribution. 2 hrs. lect.

J. H. WAGHORNE.

The design of transmission and distribution lines, including the economic, electrical and mechanical principles involved. The design of electric power plants and substations, including the use of relays for control and protection. The calculation of short circuit currents by means of symmetrical components. Experiments on artificial lines and high tension phenomena are included in 81(b).

Text-book: To be announced.

Reference books: Morse, *Power Plant Engineering and Design*; Sanderson, *Electric System Handbook*; Wagner and Evans, *Symmetrical Components*.

79. Electrical Machine Design. 1 hr. lect., 3 hrs. lab.

W. E. CORNISH.

The design of generators, motors, transformers, solenoids, lifting magnets and magnetic clutches.

Text-book: Kuhlmann, *Design of Electrical Apparatus*.

Reference book: Still, *Elements of Electrical Design*.

80. Electrical Communication. 2 hrs. lect., 3/2 hrs. lab.

J. H. WAGHORNE.

Resonant and coupled circuits; vacuum tubes and their application; circuits used in radio communication; elementary filter theory.

Laboratory: Experiments on vacuum tubes, high frequency measurement, and radio circuits.

Text-book: Glasgow, *Principles of Radio Engineering*.

References: Everitt, *Communication Engineering*; Terman, *Radio Engineering*.

81. Applications of Electrical Power. 2 hrs. lect., 3/2 hrs. lab.

W. E. CORNISH.

- (a) Illuminating Engineering: The laws of illumination; photometers; the characteristics of electric lamps; design of lighting systems.

Electric Railways: The principles of train operation; control and distribution systems; electric locomotives.

Industrial motor applications. Electric furnaces and welding.

Reference books: Moon, *Scientific Basis of Illuminating Engineering*; Kunerth, *Textbook of Illumination*; Fox, *Electric Drive Practice*; Standard Handbook for Electrical Engineers.

- (b) Laboratory:

A general course designed to illustrate the theory of E.E. 78 and 81.

E.E. 81 is alternative with E.E. 84.

78, 80, 81 & 84. Problem Course. 2 hrs. lab.

W. E. CORNISH, J. W. PORTEOUS AND J. H. WAGHORNE.

Selected problems in Electrical Transmission, Distribution, Communication and Power Applications.

82. Fundamentals of Electrical Engineering 2 hrs. lect., second half.

The purpose of this course is to introduce the student to more advanced problems, in applied electrical science, requiring mathematical analysis and a sound knowledge of physical fundamentals.

Text-book: Cullwick, *Fundamentals of Electro-Magnetism*.

References: Wheatcroft, *Gaseous Electrical Conductors*; Berg, *Heaviside's Operational Calculus*.

83. Power Plant Design. 2 hrs. lect., first half.

The heat balance, design and equipment of modern power stations.

Text-book: Gaffert, *Steam Power Stations*.

Reference: Morse, *Power Plant Engineering and Design*.

Prerequisite: C.E. 57 and C.E. 84.

84. Short and Ultra-Short Wave Radio. 2 hrs. lect., 3/2 hrs. lab.

J. W. PORTEOUS.

Transmission lines, antenna arrays, propagation and application of short and ultra-short waves, together with transmitting and receiving systems. The measurement of electrical quantities at high frequencies.

Laboratory: Experiments to illustrate the theory presented in the lectures.

References: Ladner and Stoner, *Short Wave Wireless Communication*; Moullin, *Radio Frequency Measurements*; Hund, *High Frequency Measurements*; *Proceedings of the Institute of Radio Engineers*.

E.E. 84 is alternative with E.E. 81.

Graduate Courses.**101. Principles of Radio Engineering.** 2 hrs. lect., 6 hrs. lab.

J. W. PORTEOUS.

Advanced theory and practice of electrical communication, with special reference to radio engineering.

In addition to the laboratory the University Broadcasting Station CKUA is used for experimental purposes.

References: Terman, *Radio Engineering*; McIlwain and Brainard, *High Frequency Alternating Currents*; Terman, *Measurements in Radio Engineering*; Everitt, *Communication Engineering*; Current Journals.

102. Electric Circuits. 2 hrs. lect., 6 hrs. lab.

The theory and methods for the analysis of modern power circuit problems. References: Dahl, *Electric Circuits*; Wagner and Evans, *Symmetrical Components*; Current Journals.

Only one graduate course will be available each year, and if required alternatives to E.E. 101 and E.E. 102 may be offered.

GEOLOGY***30. Introductory Geology (Second Year Chemical and Electrical Engineering).** 3 hrs. lect. first half, 3 hrs. lab. sec. half.

J. A. ALLAN.

Physical geology and physiography; principles of mapping; interpretation of topographical maps; problems in geology; common rocks and rock-forming minerals.

Text-book: Ries and Watson, *Elements of Engineering Geology*.

Reference: Legget, *Geology and Engineering*.

***32. Introductory Geology (Second Year Mining and Civil Engineering).** 3 hrs. lect. first half; 2 hrs. lect., 3 hrs. lab. sec. half.

J. A. ALLAN.

First term, same as Geology 30. Second term, Historical Geology.

Text-books: Ries and Watson, *Elements of Engineering Geology*; Miller, *Introduction to Historical Geology*; Schuchert, *Outlines of Historical Geology*.

Senior Courses.

- *50. Petrology (Mining Engineering).** 3 hrs. first half.

R. L. RUTHERFORD.

Text-book: Pirsson (Second Edition, Knopf), *Rocks and Rock Minerals*.

Prerequisites: Geology 32 and 52.

- 52. Mineralogy (Mining and Chemical Engineering).**

2 hrs. lect., 3 hrs. lab.

R. L. RUTHERFORD.

Principles of crystallography; physical and chemical properties of minerals; blow-pipe analysis.

Text-books: Dana's *Text-book of Mineralogy* (4th ed.), W. E. Ford; Lewis and Hawkins, *Determinative Mineralogy* (4th ed.).

Prerequisite: Geology 30 or 32.

- 54. Petrology.**

3 hrs. lect., 3 hrs. lab.

R. L. RUTHERFORD.

Introduction to petrography; optical properties of common rock-forming minerals; classification and genesis of sedimentary, igneous and metamorphic rocks; examination of rock sections.

Text-books: Winchell, *Elements of Optical Mineralogy, Part I*; Johannsen, *Essentials for the Microscopical Determination of Rock-Forming Minerals and Rocks*; Tyrrell, *Principles of Petrology*; or Grout, *Petrography and Petrology*.

Prerequisite: Geology 51 or 52.

- 60. Mineral Deposits (Mining Engineering).**

3 hrs. lect. first half; 3 hrs. lect., 3 hrs. lab. sec. half.

J. A. ALLAN.

Classification, mode of occurrence and geological relations of various types of mineral deposits, including petroleum, natural gas and coal.

Text-book: Ries, *Economic Geology*, or Bateman, *Economic Mineral Deposits*; or Lindgren, *Mineral Deposits*; Emmons, *Geology of Petroleum*; Moore, *Coal*.

Prerequisite: Geol. 52.

HYGIENE

- *51. Elementary Hygiene.**

1 hr. first half.

A. C. McGUGAN.

The principles of sanitary science, etc.

Engineering students must present a first aid certificate to obtain credit in this course.

MATHEMATICS

Junior and Senior Courses.

- *21. Calculus and Plane Analytical Geometry.** 2 hrs. lect., 2 hrs. lab.

E. W. SHELDON AND G. B. TAYLOR.

Calculus, related topics in plane analytical geometry and algebra; applications. Spherical Trigonometry.

In the Faculty of Applied Science: required in first year.

Text-book: Carmichael, Weaver and LaPaz, *Calculus*; Brink, *Spherical Trigonometry*.

Prerequisite: Algebra 2 and Trigonometry and Analytical Geometry.

***22. Elementary Mechanics.** 3 hrs. lect.; 2 hrs. lab. sec. half.

J. W. CAMPBELL AND E. S. KEEPING.

The fundamental principles of elementary mechanics involved in the kinematics and dynamics of particles, and the plane motions of rigid bodies.

Text-book: Campbell, *An Introduction to Mechanics*, and *Numerical Tables*.

Co-requisite: Mathematics 21.

***25. Calculus and Space Geometry.** 3 hrs.

A. J. COOK AND E. S. KEEPING.

Functions of two or more variables; space loci; determinants and matrices; nomograms; the processes of differentiation and integration; series; differential equations; complex numbers; vectors.

Text-books: Miller, *Calculus*; Eisenhart, *Co-ordinate Geometry*; supplementary material.

Prerequisite: Mathematics 21.

***26. Mechanics.** 2 hrs. lect.; 2 hrs. lab. first half.

J. W. CAMPBELL.

Text-book: Campbell, *An Introduction to Mechanics*, and *Numerical Tables*.

In Civil and Electrical Engineering: required in third year.

Prerequisites: Mathematics 21 and 22.

57a. Higher Mathematics for Engineers. 2 hrs.

E. S. KEEPING.

Ordinary differential equations, with applications to mechanics, electricity and chemistry. Elliptic integrals. Fourier series and harmonic analysis. Vector analysis. Line and surface integrals. Elements of complex variable.

Text-book: Reddick and Miller, *Advanced Mathematics for Engineers*.

Prerequisite: Mathematics 25.

MINING AND METALLURGY

Students of mining and metallurgy are allowed, through various electives, to emphasize any one phase of mining and metallurgy such as coal mining, metal mining, metallurgy; metallography, ore dressing, etc.

Junior Courses.

***41. Fire Assaying.** 1 hr. lect. first half, 3 hrs. lab. every second week.

E. O. LILGE.

Furnaces, balances and other appliances used in assaying, sampling, and preparation of ores, fluxes and reagents. Assay slags and fusions. Methods used in assaying gold and silver in ores, mattes, bullion, etc. Required of all students in mining and metallurgy, and chemical engineering.

Prerequisite: Chem. 40.

Reference books: Fulton and Sharwood, *A Manual of Fire Assaying*; Bugbee, *Fire Assaying*; Shepard and Dietrich, *Fire Assaying*.

Senior Courses.**57. Mining Trip.** 2 weeks at end of sec. half.

An extended trip to visit local and other mining districts of the province and adjacent districts. Members of the Department of Geology of the University accompany the party, and the areal geology of each district is studied under their supervision.

Mining trip is made every second year, and is required of both 3rd and 4th year students. The cost to each student will not exceed \$50.00.

Required of all students in mining and metallurgy before graduation.

Discontinued for the duration.

72. Principles of Mining. 2 hrs. lect., 3 hrs. lab. sec. half.

N. C. PITCHER, E. O. LILGE AND G. W. GOVIER.

Prospecting, deep drilling, earth and rock excavation, drills and coal cutters, explosives and blasting, mine development, timbering, subsidence and support of excavations.

Text-book: Peele, *Mining Engineers' Handbook*.

References: Young, *Elements of Mining*; Lewes, *Elements of Mining*.

73. Mining Methods. 3 hrs. lect.

N. C. PITCHER AND E. O. LILGE.

Alluvial mining, open cuts, mine development, coal mining methods, ore mining methods, mining machinery, hoisting, haulage and power, illumination and ventilation, mine organization and management, mine valuation.

References: *Coal Miners' Pocket Book*; Young, *Working of Unstratified Mineral Deposits*; Gebhardt, *Steam Power Plant Engr.*, and selected reading from other sources.

74. Mine Design. 3 hrs. lab.

N. C. PITCHER AND E. O. LILGE.

Drafting room work on surface and underground layout of a mine. A hypothetical problem is submitted for study and design of a coal mine or a metal mine. Detail drawings and written discussion with necessary specifications and costs are required from each student.

75. Mine Design. 3 hrs. lab.

N. C. PITCHER, K. A. CLARK AND E. O. LILGE.

Conferences and drafting room work on a mining problem. It may be an enlargement and more detailed study of the problem selected in 74 or it may be a different problem as selected by the student. A course for students taking the mining and metallurgy option.

77. Practical Experience.

Before being granted his degree, a student must present a certificate, or certificates, showing that he has had at least 6 months' practical experience in coal, metal or shale mining (in or around a mine) or in geological field work, or such experience as shall be considered the equivalent of these.

81. Ore Dressing. 2 hrs. lect., 3 hrs. lab. every second week.

N. C. PITCHER, E. STANSFIELD AND E. O. LILGE.

Fuels: classification of coal, calorimetry and heating value of fuels.

Ore Dressing: lectures on the use of the microscope in ore dressing, crushing, and grinding, settling, filtration, classification, specific gravity separations, amalgamation, types of machines used, flow sheets.

Laboratory exercises include preparation and examination of polished sections of ore minerals; crushing, grinding, screening, settling and amalgamation investigations on ores obtained from various mines in Canada. The investigations are carried out by the class working in groups of three or more students. Reports on the above investigations are prepared by each student.

References: Taggart, *Handbook of Ore Dressing*; Rabone, *Flotation Plant Practice*.**83. Ore Dressing and Mill Design.** 3 hrs. lect., 1st half; 3 hrs. lab.

E. O. LILGE.

M.E. 83 is a continuation of the course M.E. 81. Lectures on the problems of ore dressing, economics of ore dressing, theory of flotation, theory of cyanidation, mill machinery, flow sheets, mill design, milling costs.

Laboratory exercises consist of further testing on the same ores used in M.E. 81. These investigations include flotation tests, cyanidation tests, amalgamation tests, fire assaying and chemical analysis. Students work in groups of three or more, but prepare individual reports on above investigations. The test work is completed in the first term. In the second term, the results obtained from the investigations carried out are used as a basis for mill design. A small mill, capacity from 100 to 300 tons, is designed by each student.

References: Taggart, *Handbook of Ore Dressing*; Rabone, *Flotation Plant Practice*; Wark, *Principles of Flotation*; Hamilton, *Manual on Cyanidation*.**90. Metallurgy.** 3 hrs. lect. second half.

K. A. CLARK.

Extractive Metallurgy; the iron blast furnace, steel-making processes, smelting of copper ores and refining of copper; hydro-metallurgical extraction of copper from ores, smelting and refining of lead and zinc, metallurgy of other metals.

References: Lidell and Doan, *Principles of Metallurgy*; Boylston, *Iron and Steel*; Hayward, *An Outline of Metallurgical Practice*; Bray, *Non-Ferrous Production Metallurgy*.**91. Metallurgy.** 3 hrs. lect. second half.

K. A. CLARK.

Extractive Metallurgy; similar to M.E. 90, but in the latter part of the session, class attends lectures on electro chemistry, Chem. 60, in place of balance of lectures in M.E. 90. For students in Chemical Engineering.

92. Metallography. 3 hrs. lect. first half, 3 hrs. lab.

K. A. CLARK.

Physical Metallurgy; the constitutional diagram, iron-carbon diagram, heat-treatments for steel, alloy steels and other topics. Laboratory assignments on

cooling curves for nonferrous alloys and steel, preparation of polished and etched metal surfaces for microscopic examination, heat treatments of steel and examination of changes in physical properties and microstructure, hot and cold working of steel, examination of cast irons, casting cold working and annealing of brass, precipitation and age hardening alloys.

References: Williams and Homerborg, *Principles of Metallography*; Doan, *Principles of Physical Metallurgy*; Bullens, *Steel and Its Heat Treatment*; Sauveur, *Metallography and Heat Treatment of Iron and Steel*; Kehl, *The Principles of Metallographic Laboratory Practice*; Metals Handbook.

93. Metallography. 3 hrs. lect., 3 hrs. lab., first half.

K. A. CLARK.

Physical Metallurgy; same lectures as for M.E. 92. Laboratory assignments on cooling curves for nonferrous alloys and steel, preparation of polished and etched metal surfaces for microscopic examination, heat treatments for steel and examination of changes in physical properties and microstructure. For students in Chemical Engineering.

References: Same as for M.E. 92.

PHYSICS

***21. Properties of Matter, Heat, Light and Sound.** 3 hrs. lect., 2 hrs. lab.

L. H. NICHOLS AND D. B. SCOTT.

Illustrated by experiments.

For first year students in Applied Science.

Text-book: Hausmann and Slack, *Physics*.

Reference books: Kimball, *College Physics*; Edser, *Heat for Students*.

***46. Magnetism and Electricity.** 3 hrs. lect., 2 hrs. lab.

E. H. GOWAN AND H. E. JOHNS.

A course prerequisite to more advanced courses in electrical physics and in electrical engineering. Illustrated by experiments. For second year engineering students.

Text-book: Hausmann and Slack, *Physics*.

Reference books: Brooks and Poyser, *Magnetism and Electricity*; Pilley, *Electricity*; Bragg, *Electricity*; Loeb, *Fundamentals of Electricity and Magnetism*.

Prerequisite: A university course in Physics, including laboratory work, and Mathematics 21.

52. Electrical Physics. 2 hrs. lect., 3 hrs. lab.

E. H. GOWAN.

Electrical and magnetic testing, precision electrical measurements, electric units and their dimensions, electrostatics and potential theory, direct and alternating current circuits.

For third year students in electrical engineering.

Text-books: Terry and Wahlin, *Advanced Laboratory Practice in Electricity and Magnetism*; Michaels, *Advanced Electrical Measurements*.

Reference books: Pidduck, *A Treatise on Electricity*; Laws, *Electrical Measurements*; Langedorf, *Principles of D.C. Machines*.

55. Elements of Electron Theory.

3 hrs. lect., first half.

L. H. NICHOLS.

A course on modern electrical theory emphasizing especially the nature and properties of ions in gases, ionisation by collision, sparking potentials, photo-electricity, X-rays, electrical conductivity of metals.

For fourth year students in electrical engineering.

Reference book: *Fundamental Processes of Electrical Discharge in Gases*, Loeb; others to be assigned.

POLITICAL ECONOMY***1. Principles of Economics.**

3 hrs.

H. W. HEWETSON AND OTHER MEMBERS OF THE DEPARTMENT.

A general introduction to the study of the tendencies underlying the wealth-getting and wealth-using activities of man. In this course there will be two lectures a week and the class will be divided into discussion groups for the third hour.

***11. Principles of Economics.**

3 hrs.

H. W. HEWETSON AND OTHER MEMBERS OF THE DEPARTMENT.

Combined with Political Economy 1 for lectures.

An introductory course for students in Chemical and Mining Engineering.

Senior Courses.**51. Principles of Political Economy.**

3 hrs.

G. A. ELLIOTT.

(a) Economics.

2 hrs.

A survey of leading principles with special reference to engineering problems.

H. W. HEWETSON.

(b) Business.

1 hr.

Selected topics from Corporation Finance and Business Law.

Open only to students in Applied Science.

FACULTY OF
MEDICINE

FACULTY OF MEDICINE

(including the schools of Dentistry, Nursing and Pharmacy.)

Matriculation, page 30.

General University regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
(Nurses \$6.00)	
Medical Service	5.00
Medical Service for 6th year Medicine	3.00
Caution Money	5.00
Library	5.00

Medicine (tuition):

(a) *Science and Medicine:*

Instruction per session, first and second years (Arts and Science)	110.00
If paid in instalments, \$2.50 additional.	
Laboratory fee \$5.00 per course, maximum \$10.00.	
Instruction per session, third, fourth and fifth years (Medicine)	225.00
Instruction per session, sixth and seventh years (Medicine)	235.00
If paid in instalments, \$5.00 additional on each instalment.	
Medical Undergraduate Society fee	2.50

Note.—The Board of Governors have authorized the collection of this fee from undergraduate students in Medicine.

(b) *Special and partial students:*

Instruction per course per session	40.00
Laboratory fee \$5.00 per course, maximum \$10.00.	
Students in Medicine who have advance credits in any course have the privilege of filling their program with courses in the Faculty of Arts and Science, but in any case will be required to pay the full year's tuition fee.	

(c) *Medicine—Old Course:*

Instruction per session, first year (Arts and Science)	110.00
If paid in instalments, \$2.50 additional.	
Laboratory fee \$5.00 per course, maximum \$10.00.	
Instruction per session, second, third and fourth years (Medicine)	225.00
Instruction per session, fifth and sixth years (Medicine)	235.00
If paid in instalments, \$5.00 additional on each instalment.	
Medical Undergraduate Society fee	2.50

Dentistry (tuition):

(a) Instruction per session, first year (Arts and Science)	110.00
If paid in instalments, \$2.50 additional.	
Laboratory fee \$5.00 per course, maximum \$10.00.	
Instruction per session, second and third years	220.00
Instruction per session, fourth and fifth years	245.00
If paid in instalments, \$5.00 additional on each instalment.	

- (b) Special and partial students, instruction per course, per session..... 40.00
Laboratory fee \$5.00 per course, maximum \$10.00.
- (c) *Science and Dentistry*:
- Instruction per session, first and second years 110.00
If paid in instalments, \$2.50 additional.
Laboratory fee \$5.00 per course, maximum \$10.00.
- Instruction per session, third and fourth years 220.00
Instruction per session, fifth and sixth years 245.00
If paid in instalments, \$5.00 additional on each instalment.

Nursing (tuition):

- (a) Degree course, instruction per session, first and fifth years..... 110.00
If paid in instalments, \$2.50 additional.
Laboratory fee \$5.00 per course, maximum \$10.00.
Instruction per session, second, third and fourth years.....Gratis
- (b) Diploma course, instructionGratis

Pharmacy Degree and Licentiate Courses (tuition):

- (a) Instruction per session, first year \$135.00
If paid in instalments, \$3.00 additional.
Instruction per session, second and third years..... 150.00
If paid in instalments, \$3.50 additional.
- (b) Special and Partial, per course 30.00
Laboratory fee \$5.00 per course, maximum \$10.00.

SPECIAL ANNOUNCEMENT

In order to expedite the graduation of students in Medicine and Dentistry who wish to join the Armed Services and in other ways contribute to the war effort the courses in Medicine and Dentistry have been accelerated. Students and prospective students in Medicine and Dentistry should watch for press announcements or write the Registrar's Office for exact information concerning fees and the dates for accelerated courses.

FACULTY OF MEDICINE

Three courses are offered, one leading to the degree of Doctor of Medicine, another to the degree of Doctor of Dental Surgery, and the third to the degree of Bachelor of Science in Nursing. In addition, the degree of Bachelor of Science in Medicine or Bachelor of Science in Dentistry may be obtained under certain conditions.

THE DEGREE OF DOCTOR OF MEDICINE

Beginning with the 1940-41 session first year Medicine and Dentistry as formerly given has been discontinued. Replacing the former first year Dentistry will be a year in the Faculty of Arts and Science. The course leading to the degree of M.D. is arranged on a basis of seven years beyond senior matriculation, two years being devoted to the course in the Faculty of Arts and Science and five years in the Faculty of Medicine. All students proceeding to Medicine are required to (a) present a minimum of three years' college credits beyond junior matriculation including the required pre-medical languages and sciences, or (b) enroll in the combined course leading to the degree of B.Sc. M.D. For detailed descriptions of these courses, see page 84.

FIRST YEAR (NEW COURSE)

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Gross Anatomy	Anat. 24	3	15	3	12	192
Histology and Embryology	Anat. 28	3	6	3	6	192
Biochemistry	Biochem. 1	3	3	3	3	194
Physiology	Physiol. 71	3	3	3	3	206

SECOND YEAR (NEW COURSE)

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Anatomy	Anat. 36, 38	2	4	2	4	192
Bacteriology	Bact. 51	3	3	3	3	193
Biochemistry	Biochem. 51 .....	...	3	...	3	194
History of Medicine	Hist. of Med.	1	...	1	...	201
Pathology	Path. 51	3	4	3	2	203
Pharmacology	Pharm'col. 72	2	3	2	3	206
Physical Diagnosis	Physical Diag. ....	...	3	...	6	...
Physiology	Physiol. 72	2	3	2	3	206

FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Medicine	Clin. Med. 51	1	9	1	9	198
Surgery	Clin. Surg. 51	1	7	1	7	207
Physiology	Physiol. 72	2	3	2	3	206
Biochemistry	Biochem. 51 .....	...	3	...	3	194
Pharmacology	Pharm'col. 72	2	3	2	3	206
Pathology	Path. 51	4	2	2	4	203
Psychopathology	Psych. 61	1	...	1	...	207
Obstetrics	Obst. & Gyn. 51 .....	...	...	2	...	202
Surgical Anatomy	Surg. Anat. 46	2	...	2	...	193
*Pharmacy	Pharm. 3	1	...	1	...	204

*Six laboratory periods of two hours each, second half.

FIFTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Medicine	Med. & Clin. Med. 52	2	10½	2	10½	198
Surgery	Surg. & Clin. Surg. 52	1	6	1	6	208
Surgical Anatomy	Surg. Anat. 56	1	...	1	...	193
Obst. and Gynaecology	Obst. & Gyn. 52	1	3	1	3	202
Pathology	Path. 52	3	3	3	3	203
Clinical Laboratory	Clin. Lab. 54	1	2	1	2	200
Clinical Pathology	Path. 53 .....	...	2	...	2	204
Ophthalmology	Ophth. 52 .....	...	1	...	...	203
Rhino-Oto-Laryngology	R.-O.-L. 52 .....	...	1	...	1	203
Hygiene	Hygiene 53	2	...	2	2	193
Therapeutics	Thera. 51	2	...	1	...	200
Med. Jurisprudence and Toxicology	Med. Jur. & Toxicol. 51	1	...	1	...	204
Path. Chem.	Biochem. 52	1	...	1	...	194
Psychiatry	Psychiatry 62	1	...	1	...	200
*History of Medicine	Hist. of Med. 51	1	...	1	...	201
Radiology	Radiol. 51	1	...	...	...	198

*Including medical ethics.

SIXTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
*Medicine	Clin. Med. 53	2	11	2	11	199
†Surgery	Clin. Surg. 53	1	6	1	6	208
Obst. and Gynaecology	Obst. & Gyn. 53	1	5	1	5	203
Clinical Pathology	Path. 53 .....	...	2	...	2	204
Ophthalmology	Ophth. 53 .....	...	...	...	1	203
Rhino-Oto-Laryngology	R.-O.-L. 53 .....	...	1	...	...	203
Pediatrics	Ped. 53	2	...	2	...	...
Psychiatry	Psychiatry 63 .....	...	1	...	1	200
Therapeutics	Thera. 52	2	...	2	...	200

*Including: pediatrics, tuberculosis, contagious diseases, neurology, dermatology and cardiology.

†Including: urology, orthopaedics.

Students will act as assistants to the internes at the University and affiliated hospitals.

SCHOOL OF DENTISTRY

The Degree of Doctor of Dental Surgery

The course leading to this degree is arranged on a basis of a five-year curriculum, one year of which is devoted to courses in the Faculty of Arts and Science and four years in the School of Dentistry.

The degrees Bachelor of Science and Doctor of Dental Surgery: These degrees are conferred when the student takes two years in the Faculty of Arts and Science and four in the School of Dentistry.

A student may not enter the Faculty of Arts and Science for Dentistry unless he has attained a matriculation average of at least 60% and his admission has been approved by the Director of the School of Dentistry.

For particulars concerning the year in Faculty of Arts and Science, see page 84.

FIRST YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Gross Anatomy	Anat. 12	2	7	2	7	192
Odontology	Anat. 10 and 11	1	4	1	4	192
Histology and Embryology	Anat. 17	3	4	3	7	192
Organic Chemistry	Chem. 42	3	3	3	3	195
Prosthetic Dentistry	Dent. 11	1	6	1	6	195
French	French 2	3	...	3	...	115

SECOND YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Prosthetic Dentistry	Dent. 21	1	3	1	3	195
Crown and Bridge	Dent. 23	1	3	1	3	196
Operative Dentistry	Dent. 22	1	3	1	3	195
Biochemistry	Biochem. 1	3	3	3	3	194
Physiology	Physiol. 51	3	3	3	3	206
Bacteriology	Bact. 52	2	3	1	2	193
Exodontia & Local Anaesthesia	Dent. 24	1	...	1	...	196

THIRD YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Medicine	Med. 34	1	...	1	...	199
Surgery	Surg. 34	1	...	1	...	209
Pathology, General	Path. 51	4	2	2	4	203
Pathology, Dental	Path. 34	1	...	1	...	204
Orthodontia	Ortho. 35	1	2	1	2	196
Operative Dentistry	Dent. 32	1	7	1	7	196
Exodontia and Oral Surgery...	Dent. 34	1	...	1	...	197
Radiology	Dent. 36 .....	...	...	1	...	196
Prosthetic Dentistry	Dent. 31	1	6	1	6	196
Crown and Bridge	Dent. 33	1	3	1	6	196
Pharmacology	Pharma'col. 70	1	2	1	2	206
Physiology	Physiol. 52	3	...	...	...	206

FOURTH YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Prosthetic Dentistry	Dent. 41	1	6	1	6	196
Operative Dentistry	Dent. 42	1	11	1	11	197
Crown and Bridge & Ceramics	Dent. 43	1	6	1	6	197
Exodontia and Oral Surgery...	Dent. 44 .....	...	3	...	3	197
Orthodontia	Ortho. 45	1	3	1	3	197
Radiology	Dent. 46	1	...	...	...	197
Peridontia and Preventive						
Dentistry	Dent. 47	1	1	1	1	197
Dental Medicine	Dent. 48	1	...	1	...	197
Ethics, Business and Jurisprudence						
Dent. 49	Dent. 49 .....	...	...	*	...	197
General Anaesthesia	Thera. 43	1	...	...	...	200
Surgery	Surg. 44 .....	...	1	...	1	209

SCHOOL OF NURSING**A.—UNDERGRADUATE COURSES**

The University of Alberta School of Nursing offers to undergraduate students two courses in preparation for professional Nursing.

I.—Diploma Course

A three year course leading to the University Diploma in Nursing with eligibility for registration in Alberta. The minimum preliminary educational requirement is Senior Matriculation or its equivalent. This must include Chemistry 2, Physics 2 or Biology 2, a third unit of a language (preferably Latin 3). For entrance a minimum average of 60% in senior matriculation is required. Students are admitted to this course yearly, in January. The minimum age for entrance to hospital is eighteen. There is a five months preliminary period in hospital preceding final acceptance of a student as an undergraduate nurse. The connection of an undergraduate nurse with the Hospital is terminable for cause at any time, at the discretion of the Council of the School of Nursing.

II.—Degree Course

A five year course leading to the degree of B.Sc. in Nursing. The preliminary educational requirement for this course is Senior Matriculation or its equivalent. This must include Chemistry 2, Physics 2 or Biology 2, a third unit of a language (preferably Latin 3). For entrance a minimum average of 60% in senior matriculation is required.

First Year:

One course from Division A; Philosophy 3; Chemistry 42; Zoology 1; an option; Physical Education.

Second, Third and Fourth Years:

In September following the successful completion of the first year at the University, students enter the University Hospital for three years' nursing instruction and experience, which is similar in every way to the Diploma Course. At the completion of this three-year period, students are eligible for the Alberta registered nurses' examinations and the Diploma in Nursing and may return immediately, or later, to the University for the final year.

Fifth Year:

At the present time Public Health Nursing is the only course being offered; however, it is hoped that a course in Ward Teaching and Supervision will be offered shortly as an alternative.

The Public Health Nursing course consists of lectures, laboratory, excursions, and field work during the academic year, as well as one month's field work following Convocation.

(a) LECTURES AND LABORATORY COURSES:

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Psychology of Learning	Ed. 35	3	...	...	...	201
Nutrition	Nutrition 62	2	3	2	3	201
Principles and Methods of Health Teaching	Nursing 35A	2	1 Conf.	2	1 Sem.	201
Public Health Nursing	Nursing 35B	3	2 Exc.	2	1 Sem.	201
Contemporary Nursing Problems	Nursing 35C	1	...	1	...	201
Family Case Work	Nursing 35D	1	...	1	...	202
Hygiene and Epidemiology.....	Pub. Health 35A	2	...	...	...	201
Child and Maternal Welfare.....	Pub. Health 35B	2	...	...	...	202
Communicable Diseases	Pub. Health 35C .....	...	...	1	Clin.	202
Medicine in Relation to Public Health	Pub. Health 35D	2	...	...	...	202
Public Health Administration...	Pub. Health 35E	1	...	...	...	202
Mental Hygiene	Pub. Health 35F	1	...	...	...	202
Vital Statistics	Pub. Health 35G	1	...	...	...	202

(b) FIELD WORK:

Three months of observation and practical work in Public Health Nursing are required as part of the course. At present it is arranged in the following way:

- Excursions to places of public health interest—one afternoon a week. First half.
- Two whole days and two half days a week to be spent by each student with various health organizations in Edmonton (equivalent to one month's observation). Second half.
- Two months, one before and one after Convocation, divided into two-week blocks, to be spent with the Provincial Health Unit, District Nurses, Mental Hospital, and the Victorian Order of Nurses. Second half.

B.—POST GRADUATE COURSES

The University School of Nursing will consider a limited number of applications from registered nurses (1) wishing to take a Diploma Course in Public Health Nursing (or its alternative when available), or (2) wishing to complete the University work leading to the degree B.Sc. in Nursing.

I.—Diploma Course in Public Health Nursing

Graduate nurses wishing to register for this course should make application to the Director of the School of Nursing, University of Alberta. The number accepted will be determined by the number of students in the final year of the B.Sc. course. Only nurses who are able to present entrance requirements similar or equivalent to those required for the Diploma in Nursing Course of this University will be considered. The course will be similar to the 5th year of the B.Sc. in Nursing Course.

II.—Completion of Degree Course

Graduate Nurses, wishing to complete the University work leading to the degree B.Sc. in Nursing, will be allowed to do so provided they have the necessary requirements for University entrance to the Degree Course in Nursing, and are able to show that their professional training has been adequate, and is equivalent to the three year Diploma Course as given in the University of Alberta School of Nursing. Application should be made to the Director of the School of Nursing, University of Alberta.

For detailed description of any of the above courses consult the special Announcement of the School of Nursing, which may be secured on application either to the Registrar's office at the University or to the Superintendent of Nurses, University Hospital.

SCHOOL OF PHARMACY

The University offers two courses in Pharmacy, one covering the requirements for registration as Licentiate of the Alberta Pharmaceutical Association, the other leading to the degree of B.Sc. The former covers two years and the latter three years of academic work following senior matriculation.

I.—The Licentiate Course

Students who wish to qualify for the Diploma in Pharmacy as the minimum prerequisite to acquiring membership in the Alberta Pharmaceutical Association will be required to complete successfully the first two years of the B.Sc. course. Applications for registration in the first year of the course will be accepted only upon the presentation of a certificate from the Registrar of the Alberta Pharmaceutical Association certifying the completion of two years of practical experience in the employ of a duly qualified pharmacist.

II.—The Degree of B.Sc. in Pharmacy

Students who enroll in the B.Sc. course in Pharmacy come within the jurisdiction of the Faculty of Medicine. Application for registration in the first year in this course will be accepted only upon the presentation of a certificate from the Registrar of the Alberta Pharmaceutical Association certifying the completion of two years of practical experience in the employ of a duly qualified pharmacist.

FIRST YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Botany	Bot. 4	3	3	...	2	194
Zoology	Zool. 4 .....	...	...	3	3	152
Chemistry	Chem. 40	3	3	2	3	194
Organic Chemistry	Chem. 42	3	3	3	3	195
Pharmacy	Pharm. 1	4	3	4	3	204
Pharmacy	Pharm. 4 .....	...	...	3	1	204
Accounting	Account. 2	2	2	...	...	191
Physical Education	Phys. Educ. ....	...	2	...	2	

SECOND YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Pharmacy	Pharm. 50	1	3	1	3	204
Dispensing Pharmacy	Pharm. 52	2	3	2	3	204
Pharmaceutical Chemistry	Pharm. 53	3	...	3	3	205
Materia Medica and Pharmacology	M.M. 51 .....	...	...	3	1	198
Pharmaceutical Jurisprudence	Pharm. 58 .....	...	...	1	...	205
Bacteriology	Bact. 1	2	3	...	...	193
Biochemistry	Biochem. 61	3	3	3	3	194
Chemistry	Chem. 44 .....	...	3	...	3	195
Accounting	Account. 2	2	2	...	...	191
Veterinary Science	Vet. Sci. 1	1	...	1	...	

THIRD YEAR

SUBJECTS	Course No.	First Half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Pharmacy	Pharm. 55	1	6	1	6	205
Dispensing Pharmacy	Pharm. 62	1	3	1	3	205
New and Non-official Remedies	Pharm. 63 .....	...	...	2	...	205
Physiology	Physiol. 55	3	3	3	3	206
English	Eng. 4	3	...	3	...	100
*Option						
†Option						

*An approved senior course from Division A or Division B.

†An approved senior course from one of the following departments: Botany, Bacteriology, Biochemistry, Chemistry and Pharmacology.

DETAILS OF COURSES

For particulars regarding members of the staff, see page 11.

*Attendance courses, see page 53.

ACCOUNTING

***2. Bookkeeping and Business Practice.** 3 hrs. lect., 2 hrs. lab. first half.

C. L. KING.

Introductory course in accounting for students in Department of Pharmacy. Students in this course will attend the same lectures and prepare the same laboratory assignments for the first half of the year as students in Book-keeping and Business Practice 1, and the content of the course to that stage is therefore identical.

ANATOMY

- 10. Odontology.** 1 hr. lect., 4 hrs. lab.
 W. P. CALHOUN.
 Morphology, occlusion and arrangement of human teeth.
 Text-book: Black, *Dental Anatomy*.
- 11. Comparative Odontology.** Combining with Anatomy 10, sec. half.
 W. P. CALHOUN.
 Text-books: Dewey-Thompson, *Comparative Dental Anatomy*; Gregory, *Origin and Evolution of Human Dentition*.
- 12. Gross Anatomy for Dental Students.** 2 hrs. lect., 7 hrs. lab.
 H. E. RAWLINSON.
- 24. Gross Anatomy for Medical Students.**
 3 hrs. lect., 15 hrs. lab., first half.
 3 hrs. lect., 12 hrs. lab., second half.
 H. E. RAWLINSON.
 Text-books: Cunningham, Gray, Piersol, Morris or Frazer, *Text-book of Anatomy*; Cunningham, Grant, or Frazer, *Manual*; Jamieson, *Companion to Manual*; Gould, Stedman or Dorland, *Dictionary*; Tolda, Sobotta and McMurrich, Spalteholz, Jamieson, *Atlas*; Grant and Cates, *Handbook*.
- 17. Histology and Embryology.** 1 hr. lect., 8 hrs. lab.
 The same as Anatomy 28, and with special attention to oral structures.
- 28. Histology and Embryology.** 3 hrs. lect., 6 hrs. lab.
 R. F. SHANER.
 Minute anatomy and development of the elementary tissues and of the organs of the human body.
 Text-books: Bailey, Jordan, Piersol, Bremer, Maximow, Schafer, *Histology*; Arey, Bailey and Miller, Jordan and Kindred, Frazer, Keith, *Embryology*.
- 36. Applied Anatomy.**
 2 hrs. lect., first half; 2 hrs. lect., 4 hrs. lab., sec. half
 E. GREENE.
 A review of the content of Anatomy 24 supplemented by the study of frozen sections, with medical and surgical application.
 Text-books as for Anatomy 24, and Whittaker, or Beesley & Johnston, *A Manual of Surgical Anatomy*; Rawlings, *Surface Markings*; Thompson, *Elements of Surface Anatomy*; Waterston, *Anatomy of Living Model*.
- 38. Neurology.** 2 hrs. lect., 4 hrs. lab., first half.
 R. F. SHANER.
 Gross and minute structure of the central nervous system and organs of the special senses.
 Text-books as for Anatomy 24, and Ranson, *Anatomy of the Nervous System*; Villiger, *Brain and Spinal Cord*; Kuntz, *Neuroanatomy*.

46. Surgical Anatomy. 2 hrs. lect.

E. GREENE.

The anatomy of clinical cases, with demonstrations of dissections and moist specimens, and of anatomical abnormalities in the living.

Text-books as for Anatomy 36, and Keith, *Human Embryology and Morphology*, or Lake and Marshall; Beesley & Johnston, Treves Choyce.

56. Surgical Anatomy. 1 hr. lect.

E. GREENE.

A continuation of Course 46.

Text-books as for Anatomy 46, and Massie or Lee-Macgregor, *Surgical Anatomy*.

BACTERIOLOGY AND HYGIENE**Bacteriology*****1. Elementary Bacteriology. 2 hrs. lect., 3 hrs. lab., first half.**

R. M. SHAW AND J. A. ROMEYN.

Demonstrations in elementary bacteriology. Practical laboratory exercises, i.e., making of media, staining, etc.

31. Bacteriology (Nurses' Course).

1 hr. lect., 2 hrs. lab., period of 15 weeks.

J. A. ROMEYN.

This course deals primarily with elementary bacteriology with the object of finally leading the pupils to that knowledge of the subject adequate to the practice of their profession. The course includes the bacteriology of disease, water and milk, and will deal with immunity and resistance.

***51. Pathogenic Bacteriology. 3 hrs. lect., 3 hrs. lab.**

R. M. SHAW AND J. A. ROMEYN.

The relation of bacteria and the higher parasites to disease. Cultivation of pathogenic, micro-organisms; isolation and identification of bacteria pathogenic to men, etc.

Text-books: Muir and Ritchie, Zinsser and Bayne-Jones, Topley and Wilson, Park and Williams, and Jordan.

22. Bacteriology (For Dental Students).

2 hrs. lect., 3 hrs. lab. first half, 1 hr. lect., 2 hrs. lab. second half.

R. M. SHAW.

Special attention is paid to the bacteriology of the mouth, etc.

Hygiene**53. Hygiene. 2 hrs. lect. full year and 2 hrs. lab., second half.**

R. M. SHAW, M. R. BOW AND G. M. LITTLE.

This course is for medical students and aims to give through the medium of lectures, demonstrations and inspections, the knowledge of preventive medicine, sanitation and hygiene necessary to the practitioner.

Text-books: Roseneau, Parks & Kenwood, Park, Hope & Stallybrass, Boyd.

BIOCHEMISTRY**1 and 61. General Course.**

3 hrs. lect., 3 hrs. lab.

G. HUNTER, M. M. CANTOR AND J. TUBA.

Open to students of Medicine and Dentistry, and senior subject open to students in Arts and Science, Household Economics, Pharmacy, and to other students with the prerequisite Chemistry 42.

Physico-chemical. Chemistry of carbohydrates, fats, and proteins. Enzymes. Digestion. Respiration and relation of haemoglobin and acid-base equilibrium to. Metabolism in relation to nutrients, muscle, internal secretions, and minerals. Vitamins and Nutrition. Text and reference books will be mentioned in the lectures.

Advanced Courses.**51. Pathological Chemistry.**

3 hrs. lab.

G. HUNTER AND M. M. CANTOR.

Open to fourth year medical students. The course is designed as an introduction to 52.

Urine and blood analysis and their clinical applications.

52. Pathological Chemistry.

1 hr. lect.

G. HUNTER AND M. M. CANTOR.

Open to fifth year medical students.

Basal metabolism. Acid-base balance, acidosis and alkalosis. Water balance, oedema, and anhydraemia. Pregnancy. Diabetes. Nephritis. Intestinal obstruction. Fevers. Jaundice. Deficiency Diseases.

Books and literature will be referred to in the lectures.

Students proceeding to the degree of M.A. or M.Sc. in Biochemistry should consult the Head of the Department with regard to requirements and research facilities.

BOTANY**4. Elementary Botany (Pharmacy).** 3 hrs. lect., 3 hrs. lab., first half.
2 hrs. lab., second half.

R. G. H. CORMACK.

Elements of plant morphology, histology and physiology. Microscopic examination of crude vegetable drug material in sectional and powdered form.

This course is correlated with Pharmacy 4 (Pharmacognosy).

CHEMISTRY***40. Inorganic Chemistry.**

3 hrs. lect., 3 hrs. lab., first half; 2 hrs. lect., 3 hrs. lab., sec. half.

O. J. WALKER AND N. E. PERKINS.

Lectures: Chemistry of the metals and their compounds. The principles of chemical analysis.

Laboratory: Qualitative inorganic analysis.

Text-books: Philbreck and Holmyard, *Theoretical and Inorganic Chemistry*; Yoe, *Chemical Principles*; Walton and Sorum, *Introduction to Qualitative Analysis*.

Prerequisite: Chem. 1 or complete Grade XII Chemistry.

***42. Organic Chemistry.** 3 hrs. lect., 3 hrs. lab.

R. B. SANDIN.

Lectures: An introduction to the aliphatic and the aromatic series.

Laboratory: The preparation of some organic compounds.

Text-books: Lucas, *Organic Chemistry*.

Laboratory: Fisher, *Laboratory Manual of Organic Chemistry*.

Prerequisite: Chem. 1 or its equivalent.

***44. Inorganic Chemistry (For B.Sc., M.D. and Pharmacy Students).** 3 hrs. lab.

O. J. WALKER AND W. A. LANG.

Introductory quantitative inorganic analysis.

Text-books: Yoe, *Chemical Principles*; Pierce and Haenisch, *Quantitative Analysis*.

DENTISTRY

Junior Courses.

***11. Prosthetic Dentistry.** 1 hr. lect., 6 hrs. lab.

H. A. GILCHRIST AND F. S. COLMAN.

A study of the mouth; muscles of mastication; the temporomandibular articulation; the mucous membrane; the teeth; impression materials; impression taking; casts; artificial teeth; dentures; occlusion and articulation; waxing, festooning, investing, packing, vulcanizing, finishing and polishing full and partial dentures; retention of dentures; vulcanite bases; physical properties of vulcanite; chemistry of vulcanization; repairing dentures.

Text-book: Prothero's *Prosthetic Dentistry*.

***22. Operative Dentistry.** 1 hr. lect., 3 hrs. lab.

W. P. CALHOUN.

Lectures and demonstrations on nomenclature, dental caries, use of instruments, filling materials and operative methods. Laboratory course on cavity preparation, filling procedure, instrument making, general operative work.

Reference: Black, Johnson and McGhee, *Operative Dentistry*.

***21. Prosthetic Dentistry.** 1 hr. lect., 3 hrs. lab.

H. A. GILCHRIST AND G. V. BARNETT.

An extension of Dent. 11. Also advanced methods of impression taking; occlusion and contour models; taking the bite; face bow; condyle paths; incisor paths; articulators; occlusion; articulation; rotation centres; principles governing retention; denture balance; applied physics; selection and arrangement of teeth according to type; vulcanite, celluloid, aluminum and gold denture bases; partial dentures; clasps; indirect retention.

Text-book: Prothero's *Prosthetic Dentistry*.

***23. Crown and Bridge.** 1 hr. lect., 3 hrs. lab.

H. A. GILCHRIST AND G. V. BARNETT.

History of crown and bridge work; crowns and bridges; preparation of teeth for reception of different varieties of crowns and bridges; pontex, facings, grinding, casting, swaging, occluding, soldering; causes of failure in crown and bridge work; fixed and removable bridges; various metals used; applied metallurgy.

Text-book: Prothero's *Prosthetic Dentistry*.

24. Exodontia and Local Anaesthesia. 1 hr. lect.

W. S. HAMILTON.

Lectures and demonstrations on the technique of tooth extraction and the administration of nitrous oxide gas and oxygen, and local anaesthetics.

Senior Courses.**31. Prosthetic Dentistry.** 1 hr. lect., 6 hrs. lab. and clinic.

H. A. GILCHRIST AND F. S. COLMAN.

An extension of Dent. 21, with practical application to cases in clinic.

Text-book: Prothero's *Prosthetic Dentistry*.

Reference: Wilson's *Dental Prosthetics*.

32. Operative Dentistry. 1 hr. lect., 7 hrs. lab. and clinic.

H. R. MACLEAN.

Lectures on operative procedure; laboratory technique as a preparation for future work in the infirmary; clinical practice suitable to the knowledge and ability of the student.

Text-book: Black's *Operative Dentistry*.

33. Crown and Bridge. 1 hr. lect., 3 hrs. lab. and clinic, 1st half.

1 hr. lect., 6 hrs. lab. and clinic, 2nd half.

H. A. GILCHRIST.

An extension of Dent. 23, with practical application to cases in clinic.

Text-book: Prothero's *Prosthetic Dentistry*.

References: Evans' *Crown and Bridge*, and Goslee's *Principles and Practice of Crown and Bridge Work*.

35. Orthodontia. 1 hr. lect., 2 hrs. lab.

R. R. MCINTYRE.

Lectures on the causes, classification, and treatment of malocclusion; laboratory instruction in making and adjusting appliances on technic models.

Reference: *Orthodontia*, Angle, Dewey, Lischer.

36. Dental Radiology. 1 hr. lect., sec. half.

J. C. WARD.

A course devoted to the explanation of the principles of X-rays; lectures and demonstrations on the application of radiology to dentistry.

Reference: Raper's *Radiodontia*; Crowther, *Principles of Radiography*.

41. Prosthetic Dentistry. 1 hr. lect., 6 hrs. lab. and clinic.

H. A. GILCHRIST AND S. D. FRASER.

An extension of Dent. 31.

The same text and reference books.

- 42. Operative Dentistry.** 1 hr. lect., 11 hrs. clinic.
H. R. MacLEAN, T. Hawker, P. J. Kendall and R. A. Rooney.
A course similar to Dent. 32, but conforming to the advanced work of the final year.
- 43. Crown and Bridge and Ceramics.** 1 hr. lect., 6 hrs. lab. and clinic.
H. A. Gilchrist and S. D. Fraser.
An extension of Dent. 33.
The same text and reference books.
- 34. Exodontia and Oral Surgery.** 1 hr. lect.
W. S. Hamilton.
Lectures and demonstrations on operations usually performed about the mouth by the dental surgeon. Students taking this course will be required to extract teeth and assist at other operations.
- 44. Exodontia and Oral Surgery.** 3 hrs. clinic.
An extension of Dentistry 34.
- 45. Orthodontia.** 1 hr. lect., 3 hrs. clinic.
R. R. McIntyre and H. S. A. Fleming.
Lectures on the principles of orthodontia, and clinics in the infirmary. Cases suited to the ability of the student will be treated by him under supervision.
- 46. Dental Radiology.** 1 hr. lect., first half.
J. C. Ward.
An extension of the course in Dent. 36, with special attention to radiographic technique, and the use of radiograms in the diagnosis of dental diseases.
- 47. Peridontia and Preventive Dentistry.** 1 hr. lect., 1 hr. clinic.
A. B. Mason.
Instruction in the treatment and prevention of diseases of the teeth and surrounding membranes.
- 48. Dental Medicine.** 1 hr. lect.
G. A. Gemberoy.
Special lectures on medicine as applied to diseases of the mouth met with in a dental practice.
- 49. Dental Ethics, Jurisprudence and Business Principles.** 1 hr. lect., second half.
T. F. MacDonald, A. B. Paterson and F. G. Winspear.
The course of lectures in ethics deals with the ideals of private and public life, man's attitude toward his fellows, his confreres and patients. Jurisprudence deals with the legal aspect of professional practice. The course in business is intended to guide the professional man in the conduct of his practice as to budgeting, investments, insurance, retirement funds, etc.

Prosthetic Clinic.

Each student in both the 4th and 5th years is required to carry to completion for patients a number of practical cases representing the various classes of prosthetics.

MATERIA MEDICA**Junior Courses.**

31.

1 hr. lect.

M. J. HUSTON.

A special course for nurses in training at the University Hospital.

Senior Courses.

*51.

3 hrs. lect., 1 hr. lab., second half.

A. W. MATTHEWS AND M. J. HUSTON.

The fundamental principles of pharmacodynamics and pharmacotherapy. Classification of the principal groups of therapeutic agents, the posology, proper methods of administration and toxicology of the official drugs and new remedies. The laboratory work will include practice in the identification and examination of crude and powdered drugs.

MEDICINE AND CLINICAL MEDICINE**51. Medicine and Clinical Medicine.**

2 hrs. lect. first half, 1 hr. lect. second half, 9 hrs. clinic.

E. L. POPE, H. C. JAMIESON, I. R. BELL, W. H. SCOTT, C. W. HURLBURT, J. W. SCOTT, K. HAMILTON,* J. CALDER,* R. K. THOMSON,* T. H. FIELD, G. R. DAVISON, C. B. RICH* AND E. F. DONALD.*

Lectures in theoretical medicine in Medical Building and clinics at University of Alberta Hospital and Out-patient Clinic. One lecture per week in systematic medicine. Lectures, clinics and demonstrations in the Out-patient Department and wards of the Hospital. Surface markings, history taking and physical examination of patients. A short course on the application of physiological principles to medicine will be given.

51. Radiology.

1 hr. lect., first half.

R. PROCTER.

Lectures on physics and technique of radiology. Laboratory demonstrations or fluoroscopic examinations of patients, and interpretation of radiograms.

52. Medicine and Clinical Medicine.

1 hr. lect. 1st term, 2 hrs. lect. 2nd term, 12 hrs. clinic.

E. L. POPE, H. C. JAMIESON, I. R. BELL, W. H. SCOTT, C. W. HURLBURT, D. B. LEITCH, H. ORR, J. W. SCOTT, G. R. DAVISON, P. H. SPRAGUE.

Lectures in theoretical medicine and clinics at University of Alberta Hospital. The instruction in this class will consist of a continuation of the lectures in systematic medicine once a week in the Medical Building and of bedside

*On Active Service.

teaching in the wards of the Hospital. Special attention will be given to differential diagnosis of main symptoms during the term, and students will have an opportunity of observing the progress of cases and the effects of treatment.

53. Medicine and Clinical Medicine. 2 hrs. lect., 12 hrs. clinic.

E. L. POPE, H. C. JAMIESON, I. R. BELL, W. H. SCOTT, C. W.

HURLBURT, D. B. LEITCH, J. W. SCOTT, H. ORR, J. CALDER,*

P. H. SPRAGUE.

During the final year, students will have the opportunity of acting as assistants to the internes of the hospital and will be expected to help in routine clinical laboratory work in the hospital, in writing histories and keeping up progress notes in careful detail, in routine ward-work and in out-patient clinics. Special lectures will be given during the session in the more advanced principles of general internal medicine, metabolism, cardiology, dermatology, tuberculosis, neurology and paediatrics. Opportunities will be offered for the study of contagious diseases and of mental diseases. Special bedside lectures will be given in therapeutics to illustrate the principles and application of treatment of disease. A clinical and pathological conference will be held once a week during the session.

Text-books: Medicine—Osler's *Practice of Medicine*; Conybeare's *Practice of Medicine*; Cecil's *Text-book of Medicine*; Meakins' *Practice of Medicine*; Clinical Medicine—Rawling's *Surface Markings*; Wright's *Applied Physiology*; Rainey and Hutchinson's *Clinical Methods*; Todd and Sandford's *Clinical Diagnosis by Laboratory Method*; Nicholson's *Laboratory Medicine*; Bray's *Synopsis of Clinical Laboratory Methods*; Best and Taylor's *Physiological Basis of Medical Practice*; Chamberlain's *Symptoms and Signs in Clinical Medicine*; Elmer and Rose, *Physical Diagnosis*; Meakins' *Symptoms in Diagnosis*; Walsh, *Diseases of the Nervous System*; Sutton and Sutton, *Diseases of the Skin*; Pillsbury, Sulzberger and Livingood, *Manual of Dermatology*.

Reference books: French, *Differential Diagnosis of Main Symptoms*; Purves Stewart, *Diagnosis of Nervous Diseases*; Cabot's *Physical Diagnosis*; Emerson's *Physical Diagnosis*; Hare's *Diagnosis of Disease*; Blumer's *Bedside Diagnosis*; Norris Landis, *Diseases of the Chest*; Nelson's *Loose-Leaf Living Medicine*; Osler and McCrae, *Modern Medicine*; Tidy's *Synopsis of Medicine*; Price's *Practice of Medicine*; Musser's *Internal Medicine*; Grollman's *Essentials of Endocrinology*; Brain's *Diseases of the Nervous System*; Biggart's *Pathology of the Nervous System*; Bing and Haymaker's *Text-book of Nervous Diseases*; Year Books of General Medicine, Therapeutics, and Neurology, Endocrinology and Psychiatry; Boyd's *The Pathology of Internal Diseases*.

34. Medicine.

1 hr. lect.

L. C. HARRIS.

A lecture course for dental students.

Clinical instruction as required.

51. Therapeutics. 2 hrs. lect. 1st term, 1 hr. lect. 2nd term.

I. R. BELL AND E. H. WATTS.

This comprises a lecture course to the students of the fifth year on general therapeutics, including physical therapy and practical instruction in various therapeutic procedures and prescription writing. A short course of lectures on anaesthesia will also be given, and in addition the students will be required to attend in groups from time to time for practical demonstrations.

Text-books: Whittle's *Pharmacy, Materia Medica and Therapeutics*; Cushny, *Pharmacology and Therapeutics*. Glendenning, *Modern Treatments*.

52. Therapeutics. 2 hrs.

I. R. BELL, E. H. WATTS AND J. E. CARMICHAEL.

This is a combined lecture and clinical course at the hospital to the students of the sixth year. The essential features in the treatment of the various diseases are taken up and made as practical as possible. Case histories representing various diseased conditions are taken up in conferences with detailed examination and open discussion as to the rationality and effects of the treatments. Each student is required to show efficiency in various therapeutic procedures and is required to give a stated number of anaesthetics under supervision.

Text-books: Glendenning, *Modern Treatments*; Beckman, *Treatment in General Practice*; Blumer, *Therapeutics of Internal Diseases*; Huston, *The Art of Treatment*.

43. Therapeutics. 1 hr. lect., sec. half first term.

E. H. WATTS.

This is a course for dental students with particular reference to general anaesthesia. It will comprise, besides lectures and instruction on the general technique of giving the various anaesthetics, a course designed to give the student a working knowledge of the preliminary and after-care of patients and of conditions unfavorable for general anaesthesia.

62. Psychiatry. 1 hr., fifth year.

R. R. MACLEAN.

This course includes a study of insanity and mental deficiency. A more advanced study of abnormal psychology, and a critical examination of current theories. Mental tests in clinical practice. The principles and methods of mental hygiene.

63. Psychiatry. 1 hr., sixth year.

R. R. MACLEAN AND W. J. McALISTER.

Aetiology and diagnosis of mental deficiency. Training in psychometric investigations.

54. Clinical Laboratory 1 hr. lect., 2 hrs. lab., fifth year.

J. W. SCOTT.

Lectures on the value and interpretation of laboratory methods as diagnostic aids. Practical work in carrying out the routine chemical and microscopic examination of urine, blood, cerebrospinal fluid, gastric contents, faeces, sputum, transudates and exudates.

51. History of Medicine. 1 hr. lect.

H. C. JAMIESON.

The course in the history of medicine comprises lectures once a week on the theory and practice of ancient, mediaeval and modern medicine. Particular attention is paid to the beginnings of scientific investigation in the 17th century. These lectures are illustrated by lantern slides.

NURSING—PUBLIC HEALTH**35. Education—Psychology of Learning.** 3 hrs. lect. first half.

M. E. LAZERTE.

Analysis of learning process; psychology of skills, perception, memory, reasoning and emotion.

62. Nutrition. 2 hrs. lect., 3 hrs. lab.

M. PATRICK.

For senior nurses in the degree course. A course in nutrition, with special emphasis on food budgets and low cost diets.

35A. Nursing. 2 hrs. lect., 1 hr. conference.

H. G. McARTHUR.

Principles and Methods in Health Teaching. A study of Health Education as the public health nurse will need to consider it in her work with individuals and groups in the community. Each student will be required to do a certain amount of demonstration practice-teaching.

35B. Nursing. 3 hrs. lect., 2 hrs. Exc. or Seminar.

H. G. McARTHUR.

Public Health Nursing. A study of Public Health Nursing including a historical survey of development; the principles underlying present day practice; the techniques and organization of the various branches of public health nursing.

35C. Nursing. 1 hr. lect.

H. G. McARTHUR.

Contemporary Nursing Problems. A study of the problems facing Nursing today, as well as some recent developments, and the trends in Nursing at the present time.

35D. Nursing. 1 hr. lect.

L. THOMPSON.

Family Case Work. An introductory course dealing with some of the general principles underlying social case work and the inter-relationship of nursing and allied welfare agencies.

35A. Public Health. 2 hrs. lect., first half (20 hrs.).

G. M. LITTLE.

Hygiene and Epidemiology. Lectures and demonstrations. Sanitation: control of water and food supply; disposal of sewage; infection and immunity; control of epidemic disease and sanitary bacteriology.

35B. Public Health. 2 hrs. lect. first half (20 hrs.).

D. B. LEITCH AND J. R. VANT.

Child and Maternal Welfare. A series of lectures dealing with the general principles underlying child care, including physical, mental and behavioristic aspects, as well as the methods now employed in child hygiene.

A series of lectures dealing with main emphasis in pre-natal, delivery and post-partum care of the pregnant woman.

35C. Public Health. 1 hr. lect. or clinic, second half (10 hrs.).

G. M. LITTLE.

Communicable Disease. A survey of the more important preventable diseases, and the public health nurse's role in the prevention, detection and control measures in the community.

35D. Public Health. 2 hrs. lect. first half (20 hrs.).

E. L. POPE AND ASSISTANTS.

A review of certain medical conditions in the light of their significance in public health work: Diabetes, Bright's Disease, Pneumonia, Allergy, Cancer, Tuberculosis, Heart Conditions and Venereal Diseases.

35E. Public Health. 1 hr. lect. second half (10 hrs.).

M. R. BOW.

Public Health Administration. A presentation of the various public health services, discussing the program in each and the main emphasis in public health administration.

35F. Public Health. 1 hr. lect. first half (10 hrs.).

W. J. McALISTER.

Mental Hygiene. A study of mental hygiene in relation to public health; the mental hygiene aspect of child training, and behavior problems, and the present facilities for mental hygiene work in the community.

35G. Public Health. 1 hr. lect. first half (10 hrs.).

R. M. SHAW AND E. W. SHELDON.

Vital Statistics. The principles of statistical methods; and graphical representation of statistical data.

OBSTETRICS AND GYNAECOLOGY**51. Obstetrics and Gynaecology.**

2 hrs. second half, fourth year; 2nd year, new course.

A. DAY.

An elementary course in normal obstetrics, with manikin demonstration of the mechanism of labour.

52. Obstetrics and Gynaecology. 4 hrs., fifth year; 3rd year, new course.

J. R. VANT, T. R. CLARKE AND R. H. HORNER.

A course in abnormal obstetrics, and an introductory course in gynaecology, with which are correlated demonstrations of the pathological characteristics found in various specimens. Attendance at labour room clinics.

53. Obstetrics and Gynaecology. 6 hrs. sixth year; 4th year, new course.

J. R. VANT, J. O. BAKER, A. H. MACLENNAN, T. R. CLARKE
AND R. H. HORNER.

Practical theatre and ward clinics. A manikin course in operative obstetrics. Attendance at Outdoor pre-natal and post-natal clinics.

Text-books: A. C. Beck, *Obstetrical Practice*, 3rd Edition; A. H. Curtis, *Textbook of Gynaecology*, 4th Edition.

References: Crossen and Crossen, *Diseases of Women, Operative Gynaecology*; J. B. DeLee, *Principles and Practice of Obstetrics*; E. Novak, *Obstetrical and Gynaecological Pathology*.

OPHTHALMOLOGY AND RHINO-OTO-LARYNGOLOGY**52. Ophthalmology.** 1 hr. clinic, second half.

M. R. LEVEY.

A preliminary course consisting of clinics and demonstrations with instruction in the use of instruments and appliances.

52. Rhino-Oto-Laryngology. 1 hr. lect., first half.

W. S. S. ARMSTRONG.

A preliminary course consisting of lectures and demonstrations with instruction in the use of instruments and appliances, and outdoor-clinics.

53. Ophthalmology. 1 hr., first half.

M. R. LEVEY.

Ophthalmic Clinics in the hospital.

53. Rhino-Oto-Laryngology. 1 hr. second half.

W. S. S. ARMSTRONG.

Clinical work in the hospital.

Text-books:

Ophthalmology: May, *Diseases of the Eye*; Gifford, *Textbook of Ophthalmology*. References: de Schweinitz, Fuchs.

Rhino-Oto-Laryngology: Logan Turner, *Diseases of Nose, Throat and Ear*. References: Tilly, MacKenzie.

PATHOLOGY**51. General Pathology.**

4 hrs. lect., 2 hrs. lab. first half; 2 hrs. lect., 4 hrs. lab. sec. half.

J. J. OWER AND J. W. MCGREGOR.

A series of lectures on General Pathology.

Laboratory instruction in Pathologic Histology.

52. Special Pathology. 3 hrs. lect., 3 hrs. lab., session.

J. J. OWER AND M. E. HALL.

A series of lectures on the pathological changes in the special organs and tissues with concurrent laboratory demonstrations of gross and microscopic pathological material. Attendance at autopsies.

- 53. Clinico-Pathological Conference.** 2 hrs. session.
Demonstrations of current pathological material in conjunction with clinical departments.
- 34. Dental Pathology.** 1 hr. lect.
J. C. WARD.
A lecture course on diseases of the oral cavity.
- 51. Medical Jurisprudence and Toxicology.** 1 hr. lect., session.
M. E. HALL.
A lecture course dealing with the criminal and civil aspect of legal medicine and with the action of poisons. Post mortem appearances will be illustrated by specimens, etc.

PHARMACY

Junior Courses.

- 1. General and Operative Pharmacy.** 4 hrs. lect., 3 hrs. lab.
A. W. MATTHEWS AND M. J. HUSTON.
History of pharmacy; development of the British Pharmacopoeia; the Canadian Formulary; the literature of pharmacy; pharmaceutical jurisprudence; a study of theoretical pharmacy including metrology, specific gravity, alligation, apparatus and general processes employed in pharmaceutical operations and the manufacture of galenical preparations; topics of general interest.
- 4. Pharmacognosy.** 3 hrs. lect., 1 hr. lab., second half
M. J. HUSTON.
A study of the more important vegetable drugs of the British Pharmacopoeia, their history, source, part used, structure, constituents, action, dose, official preparations. Important non-official drugs and drugs of animal origin will also be dealt with. The laboratory work includes practice in the identification and examination of drugs.
(This course is correlated with Botany 4.)
- *3. (a) Prescriptions and Dispensing (for students in Medicine).** 1 hr. lect.
A. W. MATTHEWS.

Senior Courses.

- *50. Quantitative Pharmaceutical Chemistry.** 1 hr. lect., 3 hrs. lab.
A. W. MATTHEWS AND M. J. HUSTON.
Physical methods of identification; volumetric and gravimetric chemical assays; quantitative limit tests; identification values of fixed and volatile oils; proximate assays, etc.
Prerequisites: Pharmacy 1, Chemistry 40.
- *52. Prescriptions and Dispensing.** 2 hrs. lect., 3 hrs. lab.
A. W. MATTHEWS AND M. J. HUSTON.
Methods of receiving, handling and compounding prescriptions. Difficult prescriptions and incompatibilities will receive special attention. The labora-

tory work consists of compounding and dispensing type prescriptions and training in operations involving special technique.

53. Pharmaceutical Chemistry.

3 hrs. lect., first half; 3 hrs. lect., 3 hrs. lab., second half.

A. W. MATTHEWS.

A study of the more common inorganic and organic chemical substances and preparations of the British Pharmacopoeia, British Pharmaceutical Codex, and Canadian Formulary with reference to their identification, purity, solubility, dose, use, etc. The laboratory work consists of the preparation of a number of compounds and of practice in chemical testing and assaying.

Prerequisites: Chemistry 1, Chemistry 42.

***55. Advanced Pharmacy.**

1 hr. lect., 6 hrs. lab.

A. W. MATTHEWS.

A lecture and laboratory course dealing in a more advanced manner with various phases of pharmacy which have been studied in other courses. The work includes the manufacture of the more difficult preparations of different pharmacopoeias and formularies. Assignments will include analytical problems, isolation of proximate principles and a review of current medical and pharmaceutical literature.

Prerequisite: Pharmacy 50.

***58. Pharmaceutical Jurisprudence.**

1 hr. lect. sec. half.

A. W. MATTHEWS.

A lecture course dealing with the history of pharmaceutical legislation and a study of federal and provincial laws pertaining to pharmacy, poisons, alcohol and narcotics. Legal rights pertaining to pharmacy.

***62. Advanced Prescriptions and Dispensing.**

1 hr. lect., 3 hrs. lab.

A. W. MATTHEWS.

A lecture and laboratory course to train students for practical and efficient work at the dispensing counter. Special attention is given to incompatibilities and the student is expected to show initiative in overcoming the difficulties encountered.

Prerequisite: Pharmacy 52.

***63. New and Non-Official Remedies.**

2 hrs. lect., sec. half.

A. W. MATTHEWS.

A lecture course dealing with non-official preparations and pharmaceutical specialties, and including current information relative to the composition, properties, uses and source of supply of the newer trade-marked preparations.

NOTE: For Materia Medica courses, see page 198.

PHYSIOLOGY AND PHARMACOLOGY

Physiology

***31.**

2 hrs. lect., 2 hrs. lab.

J. FERGUSON.

In this course, which extends through twelve weeks, the essentials of physiology are studied by means of lectures, demonstrations and practical

work. It is designed to meet the needs of those who are taking the course in Nursing.

51. 3 hrs. lect., 3 hrs. lab.

A. W. DOWNS AND STAFF.

For students of the second year in Dentistry.

52. 2 hrs. lect., first half.

A. W. DOWNS.

A lecture course on the central nervous system.

For students of the third year in Dentistry.

55. 3 hrs. lect., 3 hrs. lab.

A. W. DOWNS AND STAFF.

For students of Pharmacy.

71. 3 hrs. lect., 3 hrs. lab.

A. W. DOWNS AND STAFF.

For students of the first year in Medicine.

This course comprises a detailed study of the physiological phenomena of the blood, the circulation, digestion, absorption, assimilation, excretion, respiration and animal heat.

72. 2 hrs. lect., 3 hrs. lab.

A. W. DOWNS AND STAFF.

For students of the second year and old fourth year in Medicine.

The study of the central nervous system, muscle, nerve, special senses, secretion (external and internal), reproduction and heredity constitutes this course.

Pharmacology

70. 1 hr. lect., 2 hrs. lab.

F. S. B. RODMAN AND STAFF.

A course dealing with drugs of basic importance in Dentistry.

For students of the third year in Dentistry.

72. 2 hrs. lect., 3 hrs. lab.

F. S. B. RODMAN AND STAFF.

A course on the physiological action of drugs selected for their pharmacological and clinical importance.

For students of the second year and old fourth year in Medicine.

Textbooks for both courses: Goodman and Gilman, *The Pharmacological Basis of Therapeutics*; Sollmann, *A Manual of Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Clark, *Applied Pharmacology*; Sollmann and Hanzlik, *Experimental Pharmacology*; Jackson, *Experimental Pharmacology*; Cushny, *Pharmacology and Therapeutics*; Solis-Cohen and Githens, *Pharmaco-therapeutics*.

Research

The laboratory is open to those who are qualified to undertake investigations in the domain of physiology and pharmacology, and to those who may wish to proceed to the degree of M.A. or M.Sc. in either of these subjects. For particulars apply to the head of the department.

PSYCHOLOGY

Medical Psychology (S.P.).

These courses are designed solely for students in the Faculty of Medicine.

- 31. Psychology for Nurses.** 2 hrs.
Psychology for nurses.
Child psychology; principles of mental health and factors in the production of mental illness; disorders of personality; mental factors in organic diseases.
- 60. Introduction to Normal and Abnormal Psychology.** 2 hrs.
A study of normal psychology in its bearing upon abnormal psychology.
(For students in third year Medicine. Those students who have credit for Psychology 51 will be exempted from this course.)
- 61. Psychopathology.** 1 hr.
A study of the abnormalities of the human mind and of the mental factors in the neuroses.

SURGERY AND CLINICAL SURGERY

Texts: Wakely and Hunter, *Rose and Carless' Manual of Surgery*; Cole and Elman, *Textbook of General Surgery*; Romanis and Mitchiner, *The Science and Practice of Surgery*; Handfield-Jones and Porritt, *Essentials of Modern Surgery*; Ritchie, *Essentials of General Surgery*; Jones and Lovett, *Orthopaedic Surgery*; Watson-Jones, *Fractures*; Magnuson, *Fractures*; Key and Conwell, *Management of Fractures, Dislocations, and Sprains*; Kretchmer and Rolnick, *Urology*; Horder and Gow, *Essentials of Medical Diagnosis*; Hutchison and Hunter, *Clinical Methods*.

References: Christopher, *Text Book of Surgery*; Homans, *Text Book of Surgery*; Grey Turner, *Modern Operations of Surgery*; Bailey, *Demonstrations of Physical Signs in Clinical Surgery*; Bailey, *Emergency Surgery*; Christopher, *Minor Surgery*; Fifield, *Infections of the Hand*; Beesly and Johnston, *Manual of Surgical Anatomy*; Rawlings, *Surface Markings*; Ferguson, *Surgery of the Ambulatory Patient*; Boyd, *Surgical Pathology*.

51. Surgery and Clinical Surgery (Fourth Year).

3 hrs. lect., 1st term, 6 hrs. clinic.

2 hrs. lect. 2nd term, 6 hrs. clinic.

W. F. GILLESPIE, H. H. HEPBURN, J. K. FIFE, F. H. H. MEWBURN,

G. N. ELLIS, R. G. HUCKELL, N. E. ALEXANDER, R. L. ANDERSON,

E. S. ALLIN, W. S. ANDERSON, W. W. EADIE.

Lectures: A course of didactic lectures covering the general principles of surgery is given during the fourth year.

One hour weekly in the first term will be devoted to the application of the principles of physiology to clinical surgery.

Clinical Instruction: The clinical instruction, given at the University of Alberta Hospital, consists of a course introducing the student to bedside practice. It covers the study of surgical anatomy, landmarks and surface markings, history taking, and methods of physical examination.

At the outpatient clinic, instruction is given in the practical application of surgical principles as illustrated by inflammation, suppuraton, ulceration, gangrene, abscess, wounds, haemorrhage, sprains, simple fractures, various types of dressings used in surgery, principles of surgical technique, bandaging and the use of splints.

52. Surgery and Clinical Surgery (Fifth Year).

2 hrs. lect., 7 hrs. clinic.

W. F. GILLESPIE, H. H. HEPBURN, J. K. FIFE, J. A. MCPHERSON,

F. H. H. MEWBURN, R. G. HUCKELL, G. N. ELLIS, N. E.

ALEXANDER AND R. L. ANDERSON.

Lectures: During the session a series of didactic lectures in regional surgery is given, including genito-urinary, orthopaedic surgery and fractures.

Clinical Instruction: The students are assigned in small groups to various clinical teachers for instruction at the bedside. Cases are assigned to students for examination, and each student is taught to make a complete physical examination of surgical cases, to record his findings, to make a differential diagnosis, then a tentative diagnosis, and to learn the appropriate treatment. Satisfactory practical work of this type will be certified by the staff as a prerequisite to examination.

Ward classes will make a study of the cases in the wards, and the subjects of the clinics will be governed by the cases available for practical demonstrations. During the session an attempt will be made to familiarize the students with the important surgical diseases and injuries. In conjunction with the sixth year, a weekly clinical pathological conference is conducted by the pathological and surgical departments, when pathological material obtained from the hospital during the week will be discussed together with the clinical aspects of the cases.

53. Surgery and Clinical Surgery (Sixth Year).

2 hrs. lect., 11 hrs. clinic.

W. F. GILLESPIE, H. H. HEPBURN, G. C. GRAY, J. K. FIFE, N. L.

TERWILLEGAR, N. E. ALEXANDER, R. L. ANDERSON, J. OROBKO,

AND W. S. ANDERSON.

The sixth or final year is spent in practical hospital work. The students in this year are assigned as clinical clerks to the surgical services at the Edmonton General, Misericordia, Royal Alexandra and University of Alberta Hospitals.

During the half-year the student devotes his time to the study of surgery, and at whatever hospital he is assigned he shall perform the following duties:

He shall attend each weekly lecture as given.

He shall act as assistant to the house surgeon and carry out his instructions at all times.

He shall take the history of each patient allotted to him within 24 hours of admission to the ward, record the physical examination, record the necessary laboratory work, record the differential diagnosis and suggestions for investigation or treatment.

He shall do whatever ward work is assigned to him by the house surgeon, and shall act as second assistant at the operations performed on the patients allotted to him.

He shall attend the clinics given the fifth year on his service and assist the clinician by preparing the material for each clinic.

He shall assist in giving anaesthetics to patients assigned to him under the supervision of the anaesthetist.

He shall attend each weekly clinical pathological conference.

A satisfactory record of practical work will be certified by the staff as a prerequisite to final examination.

34. Surgery and Clinical Surgery. 1 hr. lect.

N. E. ALEXANDER.

A lecture course similar to Course 51.

44. Clinical Surgery. 1 hr. clinic.

Clinical instruction as required for dental students.

***Orthopaedic Surgery.**

F. H. H. MEWBURN AND R. G. HUCKELL.

The course in orthopaedic surgery, extending over half of the fifth year and half of the sixth year, is designed to give the student an outline of the commoner orthopaedic conditions with their diagnosis and treatment.

The course in the fifth year consists of one lecture weekly during half the session, with demonstration of cases.

The sixth year course consists of theatre or ward clinics one hour weekly for half session.

***Urology.**

G. N. ELLIS.

Weekly lectures are given for a half-term in the fifth year covering the main principles of urology. Bedside and operative clinics are conducted during the sixth year in hospital, illustrating the methods of investigating the urological case, and demonstrating the common type of urological disease.

*These courses are included in Surgery and Clinical Surgery 52, and Clinical Surgery 53.

FACULTY OF
LAW

FACULTY OF LAW

For particulars regarding staff, see page 19.

Matriculation, page 31.

General University regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
Medical Service	5.00
Caution Money	5.00
Library	5.00

Tuition:

Instruction per session	\$145.00
If paid in instalments, \$3.00 additional.	

Arts and Law (tuition):

Instruction per session, first and second years	110.00
If paid in instalments, \$2.50 additional.	
Laboratory fee \$5.00 per course, maximum \$10.00.	
Instruction per session, subsequent years	145.00
If paid in instalments, \$3.00 additional.	

FACULTY OF LAW

THE DEGREE OF LL.B.

The following courses are required of all students taking the degree of Bachelor of Laws. In addition to the study of prescribed texts particular attention will be paid to the provisions of the Statute Law relating to each subject. The Statutes to be covered will be designated by the instructor in charge of each course. Cases other than those found in the prescribed texts may be assigned by the instructor in charge of any course.

Students beginning the study of Law at this university after the first day of July, 1937, are required to have a degree in Arts and Science or its equivalent from the university or from some other recognized university. Students in the Combined Course in Arts and Law are permitted to begin their legal studies on the completion of the work of the second year in the Combined Course.

All candidates for the degree of LL.B. are required to pass a *viva voce* examination at the end of their third year unless especially exempted by the Faculty. This examination is to be of a general character covering the work of the three years.

Students in each of the three years in Law are required to obtain an average of sixty per cent. on the whole of the work of their respective years. If such average is not obtained by any student in any year, such student will be required to repeat the whole of the work of that year before taking more advanced work.

Students who have in view their ultimate call to the Alberta Bar are referred to the provisions of the Legal Profession Act (Revised Statutes of Alberta, 1942, chapter 294) and amendments thereto, and to the regulations of the Law Society of Alberta. Students who have in view the practice of law in some province other than Alberta are advised to acquaint themselves with the relevant regulations before starting their course in the Law School.

First Year

Contracts 1. 3 hrs.

F. J. NEWSON.

Kenny, *Cases on Contract*; Miles & Brierly, *Cases on the Law of Contracts*;
Selected Cases and Statutes.

Torts 1. 4 hrs.

M. M. MACINTYRE.

Wright, *Cases on Torts*.

Property 1. Real 2 hrs.; Personal 2 hrs.

M. M. MACINTYRE.

Warren, *Cases on Property*; Selected Cases and Statutes.

Criminal Law. 1 hr.

A. T. McLEAN.

Criminal Code of Canada (omitting sections relating to procedure); Beale,
Cases on Criminal Law; Kenny, *Cases on Criminal Law*; Selected Cases.

History of English Law 1. 1 hr.

R. MARTLAND.

General Introductory course; Maitland, *Constitutional History of England*;
Holdsworth, *History of English Law* (selected topics).

Agency. 1 hr.

S. B. SMITH.

Wright, *Cases on Agency*; Selected Cases.

Master and Servant. 1 hr.

E. W. S. KANE.

Wright, *Cases on Agency*; Selected Cases.

Practice 1. 1 hr.

L. Y. CAIRNS.

Moot Court Arguments. (As assigned).

M. M. MACINTYRE.

Second Year**Evidence 1.** 2 hrs.

G. W. AUXIER.

Thayer, *Cases on Evidence*; Selected Cases and Statutes.

Equity 1. 2 hrs.

G. H. STEER.

Scott, *Cases on Trusts*; Smith, *Cases on Trusts*; Smith and Read, *Cases on Equity*; The Trustee Act; Selected Cases and Statutes.

Real Property 2. 1 hr.

G. H. STEER.

The Land Titles Act; Selected Cases.

Practice 2. 1 hr.

L. Y. CAIRNS.

Legal Accounting 70. 2 hrs. first term.

F. G. WINSPEAR.

Course in Accounting for students-at-law, embracing a study of double entry bookkeeping as applied to the requirements of the legal profession; special attention is given to procedure in the recording of trust funds.

The satisfactory completion of this course is required by the Law Society of Alberta.

Moot Court Arguments. (As assigned).

M. M. MACINTYRE.

*The following courses preceded by an * or a † as the case may be. (See explanatory note.)*

Explanatory Note re alternating courses: These courses are taught to the combined second and third year classes. Those preceded by an * are taught in academic sessions, the fall term of which begins in an even year, e.g.,

1940-41, 1942-43. Those preceded by a † are taught in academic sessions the fall term of which begins in an odd year, e.g., 1941-42, 1943-44. The Faculty looks forward to the time when all of the courses will be taught each year.

***Canadian Constitutional Law.** 2 hrs.

ALEXANDER SMITH.

Selected Cases and Statutes.

***Sales.** 2 hrs.

M. M. MACINTYRE.

Falconbridge, *Cases on Sales*.

***Jurisprudence.** 3 hrs.

M. M. MACINTYRE.

The main currents of juridical thought. Consideration of the legal order from the Analytical, Historical, Philosophical and Sociological viewpoints. The Judicial Legislative and Administrative Process. Each student is required to submit an essay on some legal subject selected by the student. Meritorious essays will be published in the Alberta Law Quarterly in so far as space permits.

***Suretyship.** 1 hr.

G. W. AUXIER.

Ames, *Cases on Suretyship*; 32 Corpus Juris I-307.

***Taxation.** 1 hr.

G. W. AUXIER.

***Insurance.** 1 hr.

C. W. CLEMENT.

***Bills and Notes.** 1 hr.

A. T. McLEAN.

Bills of Exchange Act; 8 Corpus Juris 1-1008; Ames, *Cases on Bills and Notes*.

†Criminal Procedure. 1 hr.

A. T. McLEAN.

Provisions of the Criminal Code relating to procedure; Selected Cases.

†Company and Municipal Law. 2 hrs.

R. MARTLAND.

†Conflicts of Law. 1 hr.

ALEXANDER SMITH.

Falconbridge, *Cases on Conflicts of Law*; Beale, *Cases on the Conflict of Laws*.

†Informal Discussion of Recent Cases and Legislation. 1 hr.

M. M. MACINTYRE.

†Administrative Law.	M. M. MACINTYRE.	1 hr.
†Bankruptcy.	E. W. S. KANE.	1 hr.
†Wills and Administration.	M. M. MACINTYRE.	2 hrs.
†Domestic Relations.	ALEXANDER SMITH.	1 hr.
†Legal Ethics.	E. W. S. KANE	1 hr.
Third Year		
History of English Law 2.	R. MARTLAND.	1 hr.
Real Property 3.	G. H. STEER.	1 hr.
Equity 2.	G. H. STEER.	1 hr.
Practice 3.	L. Y. CAIRNS.	1 hr.
Evidence 2.	C. W. CLEMENT.	1 hr.

Such of the alternating courses (see above) as have not been previously completed by the student.

Moot Court Arguments. (As assigned).
M. M. MACINTYRE.

Psychology

56. Legal Psychology.

J. MACDONALD, H. E. SMITH, D. E. SMITH.

- (1) General psychology of cognitive processes, especially perception and memory; illusions of perception; falsifications of memory; psychology of evidence; general principles of logic; ethical aspects; theories of punishment; professional ethics.
- (2) Mental deficiency and insanity and their relation to legal responsibility; individualisation of punishment; prevention and correction of crime; juvenile delinquency.

Students will be given some practical experience in clinical work.

(Not given 1943-44.)

DEGREE WITH DISTINCTION

Students who have given evidence of a high standard of scholarship during their first year of law work may be permitted, with the approval of the Faculty, to take any two of the following subjects in addition to the work ordinarily required in the second and third years in Law.

- (a) Legal Psychology;
- (b) Corporation Finance (P.E. 69);
- (c) Political Science (P.E. 63);
- (d) Public International Law;
- (e) Roman Law.

Students who have been permitted by the Faculty of Law to take courses leading to the degree of Bachelor of Laws with Distinction may, on special application to the Faculty of Law, be permitted to substitute one or more courses in lieu of one or more of the additional distinction subjects enumerated above.

If the work of such students in the two extra subjects so taken and in the courses of the second and third years in Law indicates a high standard of scholarship, such students may, with the approval of the Faculty, be granted the degree of Bachelor of Laws with Distinction.

FACULTY OF
EDUCATION

FACULTY OF EDUCATION

General University Regulations, page 52.

FEES

Registration	\$ 3.00
Students' Union	14.50
Medical Service	5.00
Caution Money	5.00
Library	5.00
Education (Tuition):	
(a) Instruction per session	100.00
If paid in instalments, \$2.50 additional.	
Laboratory Fee \$5.00 per course, maximum	10.00
(b) Special and Partial Students, instruction per course, per session.....	25.00
Laboratory Fee \$5.00 per course, maximum	10.00
(c) Arts and Education and Science and Education:	
Instruction per session, first, second and third years	110.00
Instruction per session, fourth year	100.00
If paid in instalments, \$2.50 additional.	
Laboratory Fee \$5.00 per course, maximum	10.00
(d) Commerce and Education:	
Instruction per session, first year	130.00
Instruction per session, second and third years	145.00
If paid in instalments, \$3.00 additional.	
Instruction per session, fourth year	100.00
If paid in instalments, \$2.50 additional.	
Laboratory Fee \$5.00 per course, maximum	10.00

FACULTY OF EDUCATION

The Faculty of Education offers courses to several different groups of students:

1. Undergraduates taking courses leading to the junior diploma in Education and to the Junior Certificate for the High School;
2. Undergraduates proceeding to the B.Ed. degree and the High School Certificate;
3. Undergraduates taking Education courses for credit in other faculties;
4. Undergraduates proceeding to a combined degree: B.A., B.Ed.; B.Sc., B.Ed.; B.Com., B.Ed.;
5. Graduates of other faculties who are candidates for (a) a B.Ed. degree, and/or (b) a teacher's certificate;
6. Graduate students registered with the School of Graduate Studies for the M.Ed. degree.

Professional Training

The Faculty of Education is organized for the training of intermediate and high school teachers and for graduate study and research in the field of education. A liaison committee, composed of representatives of the Provincial Department of Education and of the University, co-ordinates with respect to teacher-training the policies of the Department and those of the Faculty.

Students who complete the prescribed courses receive a Faculty of Education diploma and are recommended to the Minister of Education for a professional certificate. Graduates who qualify for the senior diploma are recommended for the High School Certificate authorizing them to teach in grades VII to XII inclusive of the Province of Alberta; those who qualify for the junior diploma are recommended for the Junior Certificate for the High School, giving like teaching privileges in grades VII to XI inclusive.

Extension of Certification: Summer school courses under the Department of Education have been arranged for those who wish to obtain an interim professional certificate giving authority to teach in grades I to VI inclusive.

General Rules Governing Certification: See "The Training and Certification of Teachers in Alberta" (1939), a Department of Education pamphlet of regulations governing the training and certification of teachers in Alberta; and the Alberta Gazette, October 15, 1942, setting forth Order-in-Council No. 1430-42.

Registration

Candidates for the junior diploma, the senior diploma or the B.Ed. degree, register in the Faculty of Education at the beginning of their undergraduate course. Students who wish to obtain the B.A., B.Com. or B.Sc. degree before beginning their teacher training course, register in the Faculty of Arts and Science but consult with the staff of the Faculty of Education respecting the selection of prerequisites and other recommended courses. Students in combined courses register in the Faculty of Education when they have completed two years of their undergraduate program.

Students in the Faculty of Education seeking high school certification, select various groupings of subjects so that while one selects mainly courses in mathematics and science, another may select the language options, and another, courses in household economics or commerce. Matriculation candidates are advised to select from the grade XII subjects taught in their respective high schools, those which best fit their future University programs. (See Faculty of Education Matriculation requirements, page 32.)

Junior Diploma of the Faculty of Education

Students who complete the two-year program detailed below qualify for the Junior Diploma of the Faculty of Education and receive a Junior Certificate for the High School.

Junior Diploma Program:

First Year:

- (1) English 2 for group (b); English 2 or 4 for others; (2) Philosophy 2; (3) Education 40, Education 48a(2), Physical Education.
- and * (a) (4) Phil. 3 (first term), Pol. Ec. 10 (second term); (5) Chemistry.
- or (b) (4) one of French, Latin or German; (5) Phil. 3 (first term), Pol. Ec. 10 (second term).
- or (c) (4) Pol. Ec. 1; (5) Phil. 3 (first term), Pol. Ec. 10 (second term) or Commercial Law 41 (alternate years).
- or (d) (4) Chemistry; (5) H.Ec. 10.

Second Year:

- (1) Education 56; (2) Education 48b(1), including short courses supplementary thereto; (3) Education 59;
- and (a) (4) Physics; (5) Mathematics.
- or (b) (4) English or History; (5) French or Latin.
- or (c) (4) Commercial Law 41, or Phil. 3 (first term), Pol. Ec. 10 (second term)—alternate years; (5) Accounting 1.
- or (d) (4) H.Ec. 52; (5) Phil. 3 (first term), Pol. Ec. 10 (second term).

*Sections (a), (b), (c) and (d) follow respectively Sections (a), (b), (c) and (d) of Matriculation.

NOTE: Students meeting the matriculation requirements of the Faculty of Education and holding an Alberta teaching certificate may complete their junior diploma requirements in one academic year and one summer session or its equivalent.

B.ED. DEGREE: GENERAL COURSE

A.—The three-year undergraduate program leading to the B.Ed. degree and the High School Certificate is as follows:

First Year:

- (1) English 2 for group (b); English 2 or 4 for others; (2) Education 40; (3) Phil. 2; (4) Phil. 3 (first term), Pol. Ec. 10—second term; Physical Education;

- and (a) (5) (6) two courses from Division C in different departments.
 or * (b) (5) (6) two of French, Latin, German, History, Pol. Ec. 1.
 or (c) (5) Pol. Ec. 1 (6) Accounting 1.
 or (d) (5) Chemistry; (6) H.Ec. 10.

Second Year:

- (1) Education 56; (2) Phil. 51 or 54; (3) Education 58a(2); (4) two of Music, Art and Dramatics;
 and (a) (5) (6) two courses from Division C in different departments.
 or * (b) (5) (6) two of English, French, Latin, History, Pol. Ec.
 or (c) (5) Accounting 52; (6) Commercial Law 41 or Pol. Ec. (alternate years).
 or (d) (5) Chemistry; (6) H.Ec. 52.

Third Year:

- (1) Education 54; (2) Education 58b(1); (3) Education 59; (4) one of Music, Art, Dramatics;
 and (a) (5) one Division C course; (6) one course from Division A or B.
 or * (b) (5) (6) two of English, French, Latin, History.
 or (c) (5) Pol. Ec. or Com. Law (alternate years); (6) one of English, French, Latin, History.
 or (d) (5) Household Economics; (6) one of English, French, Latin, History.

Notes: 1. Two senior courses must be included among the options.

2. The minimum passing mark in all courses is 50%, but four of the courses of the second and third years (Education 54 or 56 and three of the optional subjects) must be passed with second class standing, or a mark of at least 65%.

3. For students entering with Arts and Science Matriculation a program less specialized than the one above will be arranged.

4. *The three-year program of group (b) must include two courses in English and two courses in History, Economics, Political Economy and Sociology.

5. Students meeting the matriculation requirements of the Faculty of Education and holding an Alberta teaching certificate will be allowed advance credits to enable them to complete B.Ed. requirements in two academic years and one summer session, or its equivalent.

6. When students, who have already selected the academic prerequisites of the first year in accordance with recent regulations, attempt to adjust their total programs to the above two-year and three-year prescriptions, they shall not be penalized because their courses in each of Divisions A, B and C do not fit the prescribed pattern now suggested. This means a certain amount of interchange of credits among the three divisions.

B.—Candidates holding a B.A., B.Com. or B.Sc. degree (general course) who wish to qualify for the B.Ed. degree (general course) are required to obtain credit in six approved courses in the Faculty of Education. The average passing mark must be 65% and second-class standing must be obtained in at least four courses.

Graduates holding an honors degree from the Faculty of Arts and Science, or an M.A. or M.Sc. degree, are required to obtain credit in four instead of six courses to qualify for the B.Ed. degree.

B.ED.: SPECIAL COURSES

In addition to the three-year general B.Ed. program, the Faculty of Education offers two special four-year programs in which many courses in agriculture or in household economics are included. Graduates holding the B.Ed. (in Agric.) or B.Ed. (in H.Ec.) will automatically qualify for the High School Certificate and for the Faculty of Education Diploma in Agriculture or in Household Economics. Such graduates will be particularly well qualified for positions in Alberta's rural and village secondary schools.

B.Ed. (in Agric.)**First Year:**

Agricultural Engineering 1; Animal Husbandry 1; Botany 1; Education 40; English 2; Entomology 1; Philosophy 2; Political Economy 7.

Second Year:

Chemistry 43; Education 56; Field Crops 1; Philosophy 3; Physics 1.

Third Year:

Dairying 1 (first term); Education 54a (first term); Education 58a (second term); Education 59; Entomology 53; Mathematics 40; Zoology 4 (second term).

Fourth Year:

Bacteriology 1 (first term); Education 54b (second term); Education 58b (first term); Horticulture 1; Poultry 1 (second term); Soils 51 (first term); Soils 52 (second term); an option.

B.Ed. (in H.Ec.)**First Year:**

Education 40; English 2; French 2 or Latin 2; Household Economics 10; Philosophy 2; Philosophy 3.

Second Year:

Education 56; English (senior); French 40 or Latin 40; Household Economics 41; Political Economy 7.

Third Year:

Education 54a (first term); Education 58a (second term); History 55; Household Economics 42; Household Economics 52.

Fourth Year:

Education 54b (second term); Education 58b (first term); Education 59; Household Economics 56; Household Economics 59; an option.

Combined Courses

The rules governing matriculation, promotion and sequences, in these combined courses are as in the Faculty of Arts and Science, with the exception of the 60% rule governing other combined courses. Sequences may be secured from pairs of senior Arts courses taken in any of the three senior years. Four of the senior

courses in the Faculty of Arts and Science must be passed with second class standing. The degrees will be awarded at the end of the fourth year.

B.A., B.Ed.

First Year:

Two courses from division A*; Philosophy 2; one course from division C; one option; Education 40; Physical Training.

Second Year:

Two courses from division A; one course from division B; one option; Education 56.

or

One course from division A; two courses from division B; one option; Education 56.

One of the courses in the second year may be a junior course.

Third Year:

Two courses from divisions A and B; Philosophy 51 *or* 54; one option; Education 54a(1), Education 58a(2).

Fourth Year:

One option; Education 54b(2); Education 58b(1); Education 59.

*English 2 must be included in the program of either the first or the second year.

Short courses such as those in Dramatics, Music, Art as prescribed by the Faculty of Education will be required and distributed among the three senior years but not more than one of these courses may be taken in the second or third year.

B.Sc., B.D.

First Year:

Philosophy 2; one option from division A or B; three courses from division C in different departments; Education 40; Physical Training.

Second Year:

One course from division A or B; two senior courses from division C in different departments; one junior course from division C in a department not represented by the courses taken in the first year; Education 56.

Third Year:

Philosophy 51 *or* 54; three courses from division C; Education 54a(1); Education 58a(2).

Fourth Year:

One course from division A or B; Education 54b(2); Education 58b(1); Education 59.

Short courses such as those in Dramatics, Music, Art as prescribed by the Faculty of Education will be required and distributed among the three senior years but not more than one of these courses may be taken in the second or third year.

B.Com., B.Ed.**First Year:**

(1) Educ. 40; (2) English 2 or 4; (3) Political Economy 1; (4) Accounting 1; (5) Modern Language: 1st course (French or Spanish recommended); (6) Mathematics 42.

Second Year:

(1) Education 56; (2) Psychology 51; (3) Modern Language: 2nd course; (4) (Accounting 55, Pol. Ec. 73) *or* Commercial Law 41*; (5) Pol. Ec. 64 *or* Math 43.*

Third Year:

(1) Educ. 58a(2); Pol. Ec. 10 (2nd term); (2) Com. Law 41 *or* Com. Law 51*; (3) Accounting 52; (4) Pol. Ec. 66 *or* Pol. Ec. 64*; (5) Math. 43 *or* (Accounting 55 and Pol. Ec. 73)*.

Fourth Year:

(1) Education 54; (2) Education 58b(1); (3) Education 59; (4) Commercial Law 51 *or* Pol. Ec. 66*; (5) Approved option.

* Alternative course to be taken by students entering in 1943-44.

- NOTES: 1. Approved Third Year Options: Botany, Chemistry, Accounting 53, English, Entomology, Geology, History, Mathematics, Philosophy, Physics, Political Economy, Psychology, Zoology.
2. Students in Commerce are strongly urged to secure, prior to graduation, a good working knowledge of Stenography and Typewriting.
3. 60% average to be required at the end of first year in School of Commerce.
4. Of the senior courses in Commerce, four must be passed with at least second-class standing.

Students who complete B.A. or B.Sc. requirements before registering in the Faculty of Education must present credit in Philosophy 2 or Psychology 51, and in Philosophy 51 or 54 if they wish to complete requirements for the senior diploma in one year. Registrations will be accepted from students who lack credit in the two prerequisites named. Students so registered may complete requirements for the senior diploma by supplementing the regular session course with one summer session program.

Candidates who complete requirements for the Senior Diploma of the Faculty of Education after qualifying for an honors degree in Arts and Science will receive an Interim High School Certificate with specialist standing in honors subjects.

The Degree of M.Ed.

The Faculty of Education will recommend to the School of Graduate Studies applicants for admission to candidacy for the M.Ed. degree who (a) possess a B.Ed. degree from this institution or equivalent standing in another recognized university, and (b) satisfy the Faculty of Education as to scholastic and general competence to proceed to a master's degree.

An applicant for an M.Ed. degree shall be admitted to candidacy only after his program of studies has been approved, first by the Faculty of Education, and second by the School of Graduate Studies.

The program of study for the M.Ed. degree consists of six courses and a thesis. The specification of courses will depend to some extent upon the candidate's previous training but will normally comprise the following for the groups indicated:

GROUP 1.—Students having a B.Ed. degree:

- One senior philosophy,
- One senior psychology,
- Mathematics 42 or Genetics,
- Three of Ed. 101, 102, 103 and 104.

GROUP 2—Students having an honors B.A., B.Com. or B.Sc. or an M.A. or M.Sc. who have completed requirements for the B.Ed. degree:

As for group 1 substituting a senior or graduate course in subjects of the Arts and Science program for each subject in the M.Ed. program which has been completed in earlier sessions.

GROUP 3—Students having both the B.A., B.Com. or B.Sc. and B.Ed. degrees whether these have been taken in the combined course or in sequence:

- One senior philosophy,
- One senior psychology,
- Mathematics 42,
- Three of Ed. 101, 102, 103 and 104.

As alternates to certain of the courses named above in the normal programs of groups 1, 2 and 3, there may be substituted, subject to the approval of the Faculty of Education, courses which from time to time may be arranged to meet the needs of teachers-in-service who hold the B.Ed. degree.

The thesis topic may be taken in any educational field, subject to the approval of the Faculty of Education. After the investigation has been planned in consultation with a staff adviser, an advisory committee of three members will be appointed and will be responsible for the supervision and reading of the thesis. The thesis itself should constitute a substantial contribution to educational theory or practice and should be presented in triplicate, typewritten or printed.

In respect of courses taken with a view to the fulfilment of the regulations for the M.Ed. degree, the pass mark shall be 65% and no supplemental examinations will be permitted.

Regulations governing the dates of registration in courses, of program approval, and of submission of theses are those set forth by the School of Graduate Studies under the heading, Higher Degrees.*

A candidate for the M.Ed. degree is required—

- (a) to make application to the School of Graduate Studies *either* before October 1, if he proposes to take courses during the winter session and to write examinations in April *or* before March 15 if he proposes to take courses in the summer session and to write examinations in August;
- (b) to present with his application for registration, a program of studies approved by the Dean of the Faculty of Education;
- (c) to register for every winter or summer session in which he proposes to take courses until his program has been completed. A new program form must

be submitted at the same time stating the courses immediately to be taken and noting any changes in the original program of studies.

In future each candidate submitting a thesis shall be required by the Faculty of Education to submit in triplicate a 500- to 1500-word abstract which outlines briefly the method of investigation, the experimental findings and the conclusions.

DETAILS OF COURSES

EDUCATION

- 35. Psychology of Learning (B.Sc. Nursing).** 3 hrs. first half.
M. E. LAZERTE.

Analysis of learning process; psychology of skills, perception, memory, reasoning, and emotion.

- 40. Introduction to the Study of Education.** 1 hr.
M. E. LAZERTE.

An orientation course to familiarize students with details of the profession which they have chosen. The course will include educational guidance through student counselling. Short periods will be given to observation of the daily work of city classrooms.

- 48. Science and Practice of Teaching.***
M. E. LAZERTE, H. E. SMITH AND K. F. ARGUE.

Parts (a) and (b) of this course, arranged for first-year students in the junior diploma course, parallel courses 58a and 58b outlined below.

- 54. Philosophy of Education.** 3 hrs.
54a(1) and 54b(2). 1½ hrs. each.
H. E. SMITH AND K. F. ARGUE.

Studies in the Philosophy of Education will be closely associated (1) with a study of the educational classics, and (2) with a survey of modern educational practices in various countries: European, American and Australian.
Prerequisite: Philosophy 51, 54 or 57.

- 56. Educational Psychology.** 3 hrs.
M. E. LAZERTE.

(a) Psychology of learning, (b) Psychology of school subjects, (c) Statistics applied to educational data.
Prerequisite: Phil. 2 or Psych. 51.

*Practical work in practice teaching and in administration will be required of all students registered in Education 48 and Education 58. Part of this work will be taken in Edmonton schools but all students will be required to devote some time to practice teaching in selected small high schools outside the city. Certain exemptions will be allowed those students who have completed normal school training or have had teaching experience in the elementary grades.

- 58. Science and Practice of Teaching.*** 3 hrs.
58a (2), intermediate schools; 58b (1), senior high schools. 1½ hrs. each.
M. E. LAZERTE, H. E. SMITH AND K. F. ARGUE.
Discussion of approved content and methods of presentation for the various subjects of the junior and senior high school curriculum. Observation and practice-teaching in grades VII to XII inclusive.
Pre-requisite: Education 56.
- 59. Education Administration.** 3 hrs.
K. F. ARGUE.
(a) Administration of schools: management of pupils, supervision of instruction, the school plant, Alberta school law.
(b) Laboratory practice; mental and educational tests; grading of school buildings.
- 60. The Secondary School Curriculum.** 3 hrs.
The influence of newer points of view in the philosophy of education upon the aims, content and procedures in selected subjects of the secondary school curriculum.
Education 56 is a prerequisite if the course is to be given graduate credit. To be offered in the summer session of 1943.
- 101. Problems in Educational Administration.** 3 hrs.
K. F. ARGUE.
Topics: school finance, school buildings, school discipline, the teaching staff, supervision, pupil guidance, classification and progress of pupils, the atypical child, extra-curricular activities, the school in relation to the community, adult education.
- 102. Educational Psychology, Advanced Course.** 3 hrs.
M. E. LAZERTE.
Seminar discussions and criticisms of literature of selected topics. Individual investigations in the psychology of the school subjects.
Prerequisite: Education 56.
- 103. Child Psychology.** 3 hrs.
M. E. LAZERTE.
Physical and mental growth of pre-school, elementary school and secondary school children. Emphasis given to the following topics: Periodicity of development, Language, Social behavior, Growth of understanding, Adolescence, Development of personality and character.
Prerequisite: Education 56.
- 104. History of Education.** 3 hrs.
H. E. SMITH AND K. F. ARGUE.
A study of the most important events in the history of European education and their effect on present-day practice in Europe, the United States and

Canada; Greek, Roman, Early Christian and Mediaeval education; the rise of universities; the Renaissance; the effect of the reformation on education in Germany and England; pioneers of modern education; development of national systems of education.

Others.

Courses in Arts and Science, Commerce, Household Economics and Agriculture that appear in any of the diploma or degree courses in Education.

SCHOOL OF
GRADUATE STUDIES

SCHOOL OF GRADUATE STUDIES

General University regulations, page 52.

FEES

Tuition for Masters degree for honors graduates	\$100.00
Tuition fee for Masters degree for pass graduates	150.00
Other graduate courses, instruction per course per session	25.00
Laboratory fee \$5.00 per course, maximum \$10.00.	
Registration	1.00
Library	2.50
Students' Union (optional)	14.50
Medical Service (optional)	5.00

SCHOOL OF GRADUATE STUDIES

The School of Graduate Studies consists of all candidates for the degrees of Master of Arts, Master of Science, and Master of Education. Other graduates, who take courses in the University after obtaining a bachelor's degree but are not candidates for any higher degree, are also enrolled in the School as "special graduate students."

The School of Graduate Studies is administered by a chairman and a committee representative of the Faculties. Inquiries should be addressed to the Chairman, School of Graduate Studies.

The Degrees of M.A. and M.Sc.

1. A student may be admitted as a candidate for the degree of Master of Arts or Master of Science who holds a bachelor's degree from the University of Alberta or from another recognized university and who is recommended by a department as qualified by the range and quality of his undergraduate work for graduate study in a particular field. A competent student who lacks adequate preparation in the proposed field of graduate study is required to take additional undergraduate courses as a special graduate student before admission as a candidate for a higher degree.

2. A candidate for the Master's degree is required—

- (a) to make application to the School of Graduate Studies and to register either before October 1 if he proposes to take courses during the winter session and to write examinations in April, or before March 15 if he proposes to take courses in the summer session and to write examinations in August.
- (b) to present with his registration form a program of studies approved and signed by the head of the department in which he intends to work. Registration and program forms may be obtained from the Office of the Chairman.
- (c) to register at the required time for every winter or summer session in which he proposes to take courses or to carry on research until his program has been completed. A new program form must be submitted at the same time stating the courses immediately to be taken and noting any changes in the original program of studies.

3. The time normally required for the Master's degree from a student with the bachelor's degree with approved standing in a General Course is two academic years. A student with an Honors degree may obtain the Master's degree in one academic year if he continues graduate study in the same department in which he took his undergraduate course in Honors. If he transfers to another department, he must follow all the rules for students with a pass degree.

4. At least one academic year in attendance at the University is required from candidates for a Master's degree but exceptions to this rule are made in the cases of teachers actively engaged in their profession in the Province of Alberta: they may work towards the M.A. (or M.Ed.) degree extra-murally and in summer sessions.

5. Candidates proceeding by extra-mural study and summer sessions may not take more than three courses in any calendar year. The number of courses which may be taken in a summer session or extra-murally in a winter session is restricted to two and any student taking two courses extra-murally in a winter session may take only one course in the summer session immediately following; similarly, any student taking two courses in a summer session may take only one course in the winter session immediately following. Students proceeding in this way are strongly advised to take only two courses in any calendar year.

6. Candidates for the Master's degree who enter the Graduate School from a General Course are required normally to take six graduate courses, to do an original piece of investigation, and to present the results of the investigation in what is called a minor thesis. Students with degrees in Honors in Arts and Science or with degrees in specialized fields in the professional Faculties are required to take fewer courses and to present a more comprehensive thesis based on a more exacting problem of research. The normal prescription for the Honors graduate continuing work in the department in which he took his Honors degree is four courses and a thesis. Whenever the number of courses is reduced, the requirements in respect of the thesis are correspondingly increased.

7. A graduate student with an Honors degree or with equivalent status in a professional Faculty may, however, be permitted to proceed to the Master's degree, without taking further courses, by undertaking a major project of research. In such a case, no use of the results of the investigation shall be made during the period of candidature for the degree without the formal sanction of the School of Graduate Studies. In the spring of the year in which the degree is to be taken, the candidate must submit three typewritten copies of his thesis in standard form. The thesis is read by a board of three examiners: at least one of the examiners must be from a department other than the one directing the project of research. The same board of examiners also conducts a public oral examination, in addition to any written examination which they may wish to set. When the thesis is approved, the original copy is deposited in the Library; the second copy becomes the property of the department; the third copy is returned to the student.

8. In all courses taken for credit towards a Master's degree, the pass mark is 65%. No supplemental examinations are permitted. The 65% rule applies also to all essays required in courses for the Master's degree.

9. Since the December meeting of the Senate, 1939, no registrations have been accepted for the degree of Master of Arts in Education but students who registered for that degree prior to December, 1939, may complete their work for this degree under the jurisdiction of the Graduate School and under the rules authorized for the degree at the time of registration.

The Degree of M.Ed.

1. A student may be admitted as a candidate for the degree of Master of Education who holds the degree of Bachelor of Education in the University of Alberta or equivalent standing in another accredited university and who satisfies the Faculty of Education and the School of Graduate Studies in respect of general competence to proceed to the Master's degree. A student who holds the degree of

Master of Arts in Education, for which registrations were accepted prior to December, 1939, may also be admitted as a candidate for the degree of Master of Education.

2. The requirements for the degree of Master of Education are six graduate courses in Education, or alternate courses in related subjects approved by the Faculty of Education, and a thesis. The six courses and the thesis shall be additional to any courses or thesis which may have been offered for the degree of Bachelor of Education or other degree. The program of courses depends upon the candidate's previous training and special interests. The normal programs for the different groups of students proceeding to this degree may be found in the calendar statement of the Faculty of Education.

3. The topic of the thesis may be chosen from any part of the field of Education. The investigation is planned in consultation with the staff in Education. After the topic is approved, an advisory committee of three members is appointed by the Council of the Faculty of Education to supervise and to examine the thesis. The thesis itself must make a substantial contribution to educational theory or practice. Three copies of the completed thesis, typewritten or printed, must be submitted.

4. Candidates for the Master of Education degree who already hold the old degree of Master of Arts in Education are required to offer only five courses including Mathematics 42 and a thesis or four courses and a thesis if standing has already been obtained in Mathematics 42.

5. In all courses taken for credit towards a Master's degree, the pass mark is 65%. No supplemental examinations are permitted.

6. The rules in paragraphs 2, 4, 5 of the preceding section, pages 233 and 234, dealing with the degrees of Master of Arts and Master of Science also apply to the candidates for the degree of Master of Education and should be carefully noted.

The Degree of B.D.

By an arrangement with the affiliated colleges, the degree of B.D. is offered by the University to graduates in the Faculty of Arts and Science who follow a course of study prescribed by the affiliated colleges and approved by the University. For information regarding this course application should be made to the Registrar. The provisions of section 5 under "The Degrees of M.A. and M.Sc." apply also to the degree of B.D.

The Degree of D.Sc.

The degree of D.Sc. may be conferred by the University on persons who shall be deemed by the Senate, after favorable report from the General Faculty Council, to have distinguished themselves by special research or learning in the domain of science, subject to the following regulations:

A candidate for the degree of D.Sc. must have received the degree of M.Sc. or a degree equivalent.

A candidate must be a bachelor of at least seven years standing before the degree can be granted.

The application must be based wholly on original work of merit carried out individually by the candidate or in co-operation with others. He shall, in the latter case, make a written statement indicating precisely the share he has personally taken

in the work. Further, in order to qualify for the degree, a reasonable proportion of the work done must be carried out at the University of Alberta.

Application must be made in writing to the School of Graduate Studies and should be accompanied by four reprints of all papers submitted by the candidate. This application must be submitted before the first day of November of the academic year in which it is proposed to take the degree, and must be accompanied by the fee of one hundred dollars.

AD EUNDEM DEGREES

Applicants for *ad eundem* degrees should communicate with the Registrar. In each case the application should be accompanied by diplomas and a calendar of the institution which has conferred the degree.

DEPARTMENT OF EXTENSION

This department is organized to help those unable to attend regular university classes, and carries on work along the following lines:

Extension Lectures

A limited number of extension lectures on various subjects may be arranged with the Director of the Department of Extension.

Division of Debating and Public Discussion

Package Libraries are compiled for the assistance of debaters, and these are loaned by the Department. This material is available to all residents of Alberta, the only charge being the payment of postage both ways.

Material for debate has been prepared on the following subjects: Canadian Navy; Capital Punishment; Closed versus Open Shop; Co-education; Commission Government of Cities; Compulsory Military Service and Training in Canada; Unemployment Insurance; Consolidated Rural Schools; Co-operative Trading; Direct Legislation; Educational Qualification for Suffrage; Heredity versus Environment; Imperial Federation, League of Nations; Literary Test for Immigrants; Military Training in Schools; Minimum Wage; Monroe Doctrine; Motion Picture in Education, Place of; Municipal Ownership of Public Utilities; Parliamentary versus Presidential Form of Government; Peace versus War; Platform versus Press; Proportional Representation; Protection versus Free Trade; Public Defender; Reciprocity with the United States; Rural versus City Life; Simplified Spelling; Single Tax; Socialism; Tractor versus Horse; Trade Unions; Equal Suffrage; Limitation of Inheritance; National School System; Motion Pictures; Chinese and Japanese Immigration; Labor Strikes; Newspapers; Novel Reading; Vocational versus Liberal Education; Departmental Store (Mail Order Business); Smoking; Co-operative Laundries and Kitchens; Agricultural Immigration; Coal versus Gas; Construction Great Lakes-St. Lawrence Ship Canal; Automobiles; Radio versus Newspapers; School Examinations; Radio Instruction in the Schools; Education vs. Reduction in Armaments; Instalment Plan of Buying; Mechanization of Industry; Trial by Jury; Calendar Reform; Aeroplanes; Chain Stores; Dress Reform; Employment of Married Women; Compulsory Voting; School Home-work; State Medicine; Business Depressions; Dictatorship vs. Democracy; Government Control vs. Prohibition; Annexation Canada to U.S.; Capitalism; Religious Instruction in Schools; Railways vs. Trucks; Union of Prairie Provinces; Electricity vs. Steam; Inflation; Sales Tax; Cancellation of War Debts; Ten-year Holiday for Science; Poverty vs. Wealth; Reading vs. Travel; Amalgamation of Railways; Communism; Gold Standard; Senate; Sweepstakes; Japanese Manchurian Policy; Prison Reform; Economic Nationalism; Planned Economy; Government Manufacture and Distribution of Armaments; Douglas System (Social Credit); Individualism under Government Control of Industries; Democracy a Failure; Democracy Suitable for Periods of Prosperity only; Canada and European Wars; Wars are Inevitable; Townsend Plan; Canada's Foreign Policy; Euthanasia; Fascism; Sanctions; Party Government; Merit vs. Patronage in Civil Service; Hornby

Plan of Immigration; Religion in Democracy; Pacifism; International Police Force; Return of Colonies to Germany; National Sovereignty; Modern Propaganda; Admission of Refugees to Canada; No Superior Races; Larger School Units; Provision of Scholarships in Education; Education and the Crisis in Democracy; Co-operative Medicine; Alaska Highway; Federal Union; Air Force vs. Navy; Rowell-Sirois Report; Atlantic Charter.

A manual of instruction for debaters is also available.

LIBRARY DIVISION

A.—Travelling Libraries. These are lent to communities where no public library exists. For this purpose over 3,500 volumes are at present available. During the season 1941-42, 100 regular libraries were in circulation, while 447 special libraries made up from the Open Shelf collection were also sent out to schools and various organizations.

B.—Open Shelf Library. On payment of postage both ways books may be borrowed from the Open Shelf Library by individuals anywhere in the Province of Alberta. Further information about the Open Shelf service and about lists of books may be obtained by writing to the Library Division.

During the year April, 1941, to March, 1942, the circulation of books from the Open Shelf Library was 12,551, of clippings and pamphlets on current and other events, 2,001. Plays for reading and amateur production were supplied to 326 communities, and pictures to help in school work were also a part of the library service.

C.—Reading Courses. For those who would like to do some "reading with a purpose," the Library Division offers help in the way of suggestions as to what books to read. Any reader wishing to take advantage of this should write to the Librarian, stating—

- (a) the subject desired;
- (b) the approximate time he can give to this reading;
- (c) his present knowledge of the subject;
- (d) whether he is reading alone or as a member of a group;
- (e) any other information that would assist in the selection of suitable books.

No University credits are given for such courses.

Division of Visual Instruction

This division offers:

A—Still Picture Service.

A library of lantern slide sets and a collection of filmstrip and miniature slides is operated from which material is loaned. Schools, churches and various types of organization carrying on an educational program may use these facilities at nominal cost.

Lanterns for glass slides are loaned for use where electricity is available and also for battery use.

A photographic plant is operated for the production of glass lantern slides, film-slides and miniature (2x2) slides for societies and persons engaged in educational lecture work.

B—Moving Picture Service.

A large number of reels in the 16 mm. size both silent and sound make up the film library of the Department of Extension.

The Department acts as repository for the National Film Board and the National Film Society both of which have placed a number of reels in the library for circulation.

Projectors for silent and sound films may be obtained through the Department of Extension and facilities for servicing and repair of these are also available.

Catalogues and lists of lantern slides, filmstrips and silent and sound moving picture films may be had on application.

C—Moving Picture Service.

An educational film exchange is operated by the Department, a number of reels on a variety of subjects being available. These are loaned on a rental basis sufficient to take care of handling and depreciation. The films are all non-inflammable and are used in a special machine complying with government and insurance requirements. A portable talking picture outfit is now available with educational films. Full particulars regarding films and machines will be supplied on application.

Division of Radio

The University of Alberta owns and operates its own radio broadcasting station under the call letters, CKUA, assigned to it by the Dominion Government. The transmitter is of 1000 watts power, operating on a wavelength of 517.2 meters, frequency 580 kilocycles. The transmitter is supervised by the Department of Electrical Engineering, and is also used for research and experimental work by the members of this Department, while the programs are arranged and the studio directed by the Department of Extension.

The programs consist of lectures, music, drama, student presentations and special features for different occasions. Of increasing value are series of talks arranged for special groups, such as Agricultural topics for farmers; health discussions and talks on handicrafts, etc., of interest to women; language conversational courses; also debates and discussions on current topics and broadcasts for schools.

FINE ARTS

Among the most important activities of the Department of Extension is its work in fine arts.

In the Music field, special attention is given to music appreciation by the University Symphony Hour on CKUA, and the master class in piano held each summer at the University.

Community art schools of two weeks' duration are held in co-operation with a number of communities each summer.

A full-time assistant in dramatics gives assistance to Little Theatre and high school dramatic groups all over the province.

The Banff School of Fine Arts.

The eleventh annual Banff School of Fine Arts, offering courses in Drama, Art, Music, Weaving and Design, Modelling and Pottery, and Oral French, will be held at Banff from July 28th to August 28th, 1943.

Credits, accepted by Departments of Education, for teachers, and by American colleges for students, are given in Drama, Art and Oral French.

SCHOOLS AND CONFERENCES

The Department offers each year a number of schools and conferences for adults. Among these are included the Alberta School of Community Life at Olds during the first two weeks of July, and the Lake Saskatoon and Gooseberry Lake Conferences, each of one week's duration, during the last half of July.

The twenty-fifth Annual Farm Young People's Conference will be held at the University during the first two weeks in June, and this will be followed by the fifth Annual Refresher Course in Municipal Administration. This latter course is specifically designed to meet the problems of municipal secretary-treasurers, councillors, and school trustees.

STUDY GROUP COURSES

For those who wish to study such subjects as International Affairs, Social Planning, General Economics, Psychology, Political Science, Co-operation, Dramatics, and Canadian Farm Problems, material has been prepared and may be obtained at a nominal cost.

INDUSTRIAL LABORATORIES

JAMES ALEXANDER KELSO, M.Sc. (Queen's), Director and Provincial Analyst.
CHARLES EMERSON NOBLE, B.A., B.Sc. (Alberta), Assistant.

The Department of Industrial Laboratories operates fully equipped chemical and physical laboratories for carrying out analyses and tests on all materials. Industrial investigations can be undertaken.

For complete information and schedule of fees apply to the Director.

DEPARTMENT OF PHYSICAL EDUCATION

The aim of the department is to contribute to the health of the student body by encouraging participation in all forms of athletic games, and by conducting classes in physical education suited to the needs of the various groups of students.

Physical education is compulsory for all new students. Those students who satisfactorily complete the requirements of the C.O.T.C., the Auxiliary Battalion, or the U.A.T.C. will not be required to take the course in physical education.

The prescribed gymnasium costume for women students is as follows: blouse with short sleeves, shorts or slacks and tennis shoes.

Exemption from physical education is normally granted to students who (1) are married, (2) are twenty-five years of age, (3) have a normal school certificate for physical education. Under war conditions, however, any exemption is granted only within the framework of the regulations governing military training for University students.

UNIVERSITY WAR SERVICE UNITS

CANADIAN OFFICERS' TRAINING CORPS

University of Alberta Contingent

The Canadian Officers' Training Corps consists of contingents at most of the Canadian Universities. Each contingent is a unit of the Reserve Army, but is governed by special regulations, under which it cannot be called out for active service as a unit. The contingent is not officially a part of the University, but the chairman of the Military Committee and the senior officers of the corps must be members of the University staff.

The Corps provides an opportunity for those students who are interested in applying for a commission in the Canadian Army (Active) to do training of a more advanced nature than that provided by the Auxiliary Battalion. All students must finish their basic training in the Auxiliary Battalion before applying for admission to the C.O.T.C.

The training provided by the C.O.T.C. is largely common to all branches of the Army though training in special branches may be given if circumstances warrant it. A good part of the training is for the purpose of developing leadership, which is so essential in an officer.

UNIVERSITY AIR TRAINING CORPS

No. 8 University of Alberta Squadron

Squadrons of the University Air Training Corps are now established at most Canadian Universities. They are reserve units of the Royal Canadian Air Force, and are not "on active service."

The U.A.T.C. provides an opportunity for those students who wish to go on active service with the R.C.A.F. on termination or completion of their University careers, to secure basic training along the same lines as that now given to recruits, thus enabling them to reduce the time spent in preliminary instruction, and go more directly to advanced flying or ground courses of instruction.

This basic training syllabus covers the same ground as the Initial Training Schools under the British Commonwealth Air Training Plan, the time being extended to cover two full University sessions plus two summer camps of two weeks duration each at a flying station of the R.C.A.F. A student who successfully completes this training may proceed directly to flying schools on enlistment for active service.

U.A.T.C. advanced courses will be made available to those who complete the basic training course and are still in attendance at the University.

AUXILIARY BATTALION

University of Alberta Contingent

As a result of the ruling of the University in collaboration with other Canadian Universities that all male students take military training, it was necessary to organize an Auxiliary Battalion to include the larger portion of the University students. The training carried out by the Auxiliary Battalion was based on the curriculum of the

Infantry Training centres. The amount of training for this was four hours a week for the University year, plus two weeks at camp in the summer. Students called up to the Training Centres could have that training postponed, provided they were training at the University.

As it is more than probable that the curriculum in the Training Centres will be considerably extended in the future, it becomes impossible to predict the extent or character of the training in the Auxiliary Battalion for the University year 1943-44.

WOMEN'S WAR SERVICES

Women students are required to devote several hours each week to war services or to training which will help them to keep fit, or prepare them for war service.

First year students are required to take Physical Education and drill. All students are advised to take a St. John's Ambulance Course in First Aid or Home Nursing. In addition, classes in Signalling and Air Raid Precaution are offered. Opportunities are provided for students to do Canteen and Red Cross Work.

AFFILIATED INSTITUTIONS

THE UNIVERSITY HOSPITAL

The University of Alberta Hospital has a bed capacity of 432. The distribution of beds to the various services is fairly uniform. The hospital is administered by a Board appointed every three years by Order in Council following recommendations by the Board of Governors of the University of Alberta and by the Government of the Province of Alberta. Appointments to the teaching staff in the clinical departments of the Faculty of Medicine of the University and in the teaching departments of the hospital are made conjointly by the two administering Boards. This insures that the members of the teaching staff of the hospital are the members of the departments of Medicine, Clinical Medicine, Surgery, Clinical Surgery, Obstetrics and Gynaecology of the University. The heads of the departments of Bacteriology, Pathology and Biochemistry of the University act as a committee on laboratory methods within the hospital.

Teaching facilities within the Hospital for Medical students are good, there being classrooms with all equipment necessary to carry through proper demonstrations.

The Royal Alexandra Hospital (537 beds), including an infectious diseases and a maternity wing, is used for teaching purposes and sixth year students are placed there as student internes during a portion of their final year.

In the Misericordia Hospital (300 beds), surgical clinics are given and an allotment of final year students spend three months as student internes.

Under special arrangements the Edmonton General Hospital (330 beds), including the sanatorium, is used for medical and surgical clinics and an allotment of final year students are placed there as student internes.

As medical appointments to the Outdoor Clinic Staff are made annually, the names of those appointed for the year ending September 30, 1942, appear as follows:

Dr. E. L. Pope	Dr. J. B. Mackay	Dr. R. G. Huckell
Dr. H. C. Jamieson	Dr. W. F. Gillespie	Dr. W. S. Armstrong
Dr. D. B. Leitch	Dr. E. S. Allin	Dr. A. D. Irvine
Dr. H. Orr	Dr. W. S. Anderson	Dr. H. McLennan
Dr. J. W. Scott	Dr. W. W. Eadie	Dr. R. H. Horner
Dr. M. M. Cantor	Dr. T. R. Clarke	
Dr. W. C. Whiteside, C.A.S.F.	Dr. E. Hitchin, C.A.S.F. (Navy)	
Dr. O. Rostrup, C.A.S.F.	Dr. K. Thomson, C.A.S.F. (Navy)	
Dr. G. N. Tucker, C.A.S.F.	Dr. J. Calder, C.A.S.F. (Navy).	
Dr. P. H. Malcolmson, C.A.S.F.	Dr. Wm. Archibald, C.A.S.F.	
Dr. C. B. Rich, C.A.S.F.	Dr. E. F. Donald, C.A.S.F.	

ST. STEPHEN'S COLLEGE

St. Stephen's College is the Divinity School of the United Church of Canada in the Province of Alberta.

Courses of Study

Three Courses of Study are open to Candidates:

1. "The attainment of a B.A. degree, including Greek, to be followed by three years in the study of Theology, is strongly recommended by the Church. Before

ordination every candidate shall spend twelve months in preaching and pastoral work."

or

2. "Three years, at least, in Arts, followed by three years in Theology. Before ordination every candidate shall spend twelve months in preaching and pastoral work."

or

3. "Two years' preaching under the supervision of a Presbytery, with appropriate studies, and four years of a mixed Arts and Theological course in College."

Note.—All courses must start from university matriculation.

Suggested Classes in Arts for Students Selecting Course No. 2.

- (a) English Language and Literature (3 years).
- (b) Two languages, one of which must be Greek (2 years in each).
- (c) Philosophy, including psychology, logic and ethics (2 years).
- (d) Two other subjects from the Arts curriculum, at the option of the student (1 year in each).

The Arts Course.

English Language and Literature; Philosophy, including psychology; logic and ethics; one language; and any one option from the Arts Course.

Theological Course.

Homiletics; Pastoral Theology; Systematic Theology; New Testament Languages and Literature; Old Testament Literature; (English Bible); Church History; Christian Ethics and Sociology.

By an arrangement with the University Senate a course in Biblical Literature is given which is open to students of the University and counts for credit on an Arts course.

Hebrew

ALFRED DENNIS MILLER, M.A., B.D., D.D.

Hebrew offers four courses under the numbers 1, 2, 40 and 52, and is now, with the consent of the Dean of Arts and Science, open to others besides theological students.

Hebrew 1 is the beginners' course. Students who make really good progress may proceed in the second year to Hebrew 40. Those not doing so well will be promoted to Hebrew 2. Hebrew 40 will count as a senior course.

Hebrew 1 or Hebrew 2 or 40 may be offered as A options in the first two years; but no student will receive credit for Hebrew 1 until he has subsequently fulfilled the requirements in Hebrew 2 or 40.

Students who do well in the subject may progress through Hebrew 1 and 40 to 52. Weaker students will proceed by Hebrew 1, 2, 40 or 52.

1. Elements of Hebrew.

3 hrs.

A. D. MILLER.

Selected chapters from the book of Genesis. Text-book: Davidson's *Grammar*; Text, Kittel's *Biblia Hebraica*.

2. Elements of Hebrew Syntax. 3 hrs.

A. D. MILLER.

Selected chapters from the historical books. Text-books: Davidson's and Harper's *Syntax*. Kittel's text.

Prerequisite: Hebrew 1.

40. 3 hrs.

A. D. MILLER.

All of 2 with an introduction to the prophetic literature, and more advanced syntax.

52. Advanced Hebrew. 3 hrs.

A. D. MILLER.

Selected portions from the prophets and poets. *Hebrew Moods and Tenses*, Driver. Kittel's text.

Prerequisite: Hebrew 2 or 40.

ST. AIDAN'S COLLEGE

The college, operating under the authority of the Synod of the Anglican Diocese of Edmonton, was affiliated with the University of Alberta by resolution of the Senate, May 15, 1919.

JUNIOR COLLEGES

By authority of the Senate of the University junior colleges may be established under the following conditions:

1. Staff—

(a) *Number of staff.*—A minimum staff of six teachers giving the major part of their time to junior college work must be maintained.

(b) *Qualifications of staff.*—The members of the staff must be university graduates with special training in their particular fields and have at least one year of post-graduate study.

2. Organization—

Junior college work may be associated with the work of the high school, but must be dissociated both in organization and in buildings from the work of the primary grades.

3. Equipment—

Library and laboratory equipment must be reasonably adequate in the subjects taught in the junior college.

4. Examinations—

The examinations of the junior college will be the regular university examinations of the first year.

The conditions of entrance and of advancement to junior college will be those which obtain in the university.

5. Financial support—

Except in the case of high schools which may obtain junior college affiliation and receive the regular department grant, junior colleges will be affiliated on the basis of private financial support only.

Mount Royal Junior College

Mount Royal College, Calgary, is a recognized junior college under the above regulations, and the first year of the course leading to the B.A. and B.Sc. in Arts and Science and B.Com degrees may be taken there.

ST. JOSEPH'S COLLEGE

This College, established under the authority of the Roman Catholic Church, is directed by the Brothers of the Christian Schools (Christian Brothers). It was affiliated with the University of Alberta by resolution of the Senate, May 13, 1926.

Co-operating with the University, the College offers instruction in the following courses of the Faculty of Arts and Science:

Philosophy 4—An Introduction to Ethics. 3 hrs.

BROTHER AZARIAS, M.A., Ph.L.

A course in moral problems. The nature and norms of morality. Personal rights and duties in relationship to problems of every-day life. An ethical evaluation of contemporary political philosophies and systems.

Philosophy 56—Medieval and Modern Scholastic Philosophy. 3 hrs.

BROTHER AZARIAS, M.A., Ph.L.

The course is divided into two parts. The first deals with the Philosophy of the Middle Ages, particular attention being given to the Political and Social Philosophy of St. Thomas Aquinas. The second is concerned with the application of modern Scholastic Philosophy to political, social and economic problems of the day.

Christian Apologetics. 3 hrs.

A course covering such fundamental problems as the existence, nature and attributes of God; the origin of man and the unity of the human species; mental evolution and the human soul; natural religion; Reason and Revelation; the historical value of the New Testament; the Divinity of Christ; the institution of the Catholic Church; the Church and Civilization; Christianity and Democracy.

(This course is an option from Division B.)

RESIDENCE

St. Joseph's College is centrally located on the University Campus in a convenient relation to all the University buildings, and has housing accommodation for one hundred students. Chapel, library, assembly hall, dining-hall, cafeteria and tea-rooms are available for use by the students. The residence rates are the same as those determined by the University as authorized in the Calendar. House regulations are enforced by a house committee elected by the students in residence.

Information regarding courses and residential facilities may be obtained on application to Brother Ansbert, F.S.C., Rector.

THE PROVINCIAL INSTITUTE OF TECHNOLOGY AND ART

This institution situated in Calgary and operating under the authority of the Department of Education was affiliated with the University of Alberta by resolution of the Senate, May 13th, 1926.

Information regarding courses may be obtained on application to the Principal, Provincial Institute of Technology and Art, Calgary.

REGISTER OF STUDENTS

1942-43

A—Faculty of Arts and Science; Ag—Faculty of Agriculture; S—Faculty of Applied Science; C—Commerce; D—Dentistry; H.Ec.—Household Economics; L—Law; M—Medicine; N—Nursing; Phm—Pharmacy; E—Faculty of Education; Div—Divinity.

p—partial student; s—special student; g—graduate student; a—auditor.
The numbers refer to the year of the course.

Aaron, Miss R.	A 1	Bate, J. B.	S 4
Acheson, C. D.	S 3	Bate, T. E.	S 3
Acton, B. K.	g	Bath, D. T.	S 2
Adams, D. C.	g	Batiuk, W.	A 1
Adamson, D.	A & M 1	Baugh, J. E.	S 1
Affleck, Miss J. D.	A 1	Bay, S.	A 1
Agnew, G. C.	S 2	Bayly, A. G.	p
Ainsworth, C.	A 2	Beairsto, G. R.	E 1
Albright, R. G.	A 1	Beauchemin, Miss T. M.	H.Ec. 3
Alcock, Miss P. S.	N 1	Beaudoin, J. E.	A & M 1
Aldridge, Miss K.	Phm 2	Bell, J. M.	Ag 3
Alexander, Miss V. M.	H.Ec. 2	Belyea, L. R.	A 2
Allan, Miss J. A.	N 2	Belzberg, S. I.	S 2
Allen, H. T.	Ag 4	Belzil, R.	L 1
Allen, Miss M.	E 3	Benedictson, B. V.	A 3
Almas, Miss M. A.	N 3	Bercuson, L.	g
Alston, J. G.	S 3	Berge, G. C.	C 3
Amerongen, G. J.	L 2	Bernard, G. W.	S 2
Anderson, B. J.	S 4	Bernstein, M. W.	A & M 1
Anderson, C. E.	S 2	Berry, G. L.	p
Anderson, E. T.	g	Berteig, J. A.	A & D 1
Anderson, Miss E. R.	H.Ec. 3	Bertrand, N. R.	A & M 1
Anderson, Miss G. M.	N 4	Besney, M.	A & M 1
Anderson, J. L.	g	Betts, R. H.	g
Anderson, Miss K. L.	H.Ec. 2	Bevan, M. R.	Ag 3
Anderson, L. E.	g	Biamonte, Miss A.	A & E 1
Anderson, W. L.	S 1	Biltek, A.	E 1
Andrew, Miss R. E.	A 1	Bingham, O. T.	A 1
Andrew, W. T.	Ag 3	Bishop, R. P.	A & E 2
Andrews, C. W.	Ag 3	Bissell, E. W.	A & M 1
Andrews, J. M.	C 2	Black, Miss B. B.	N 2
Appleton, Miss A. J.	N 2	Black, F.	S 1
Arbuckle, D. S.	g	Black, R. G.	L 2
Armitage, Miss B. H.	N 3	Blackburn, F.	S 2
Asselstine, Miss J. C.	N 4	Blackburn, Miss M.	A 3
Asselstine, S. H.	S 2	Blackwood, A. C.	g
Astle, W. J.	C 2	Blayney, J. L.	A 2
Aston, Miss B. T.	E 2	Bohmer, Miss R.	N 2
Atkinson, Miss S. K.	H.Ec. 1	Bonnet, H.	S 3
Bailey, R. B.	S 1	Bonsall, Miss F. H.	H.Ec. 3
Baker, H. A.	S 1	Bookhalter, H.	A & D 1
Baker, Miss L. M.	A 2	Boorman, J. A.	A 2
Baker, Miss N. R.	A 2	Boorman, Miss M. M.	N 1
Balfour, Miss A. E.	N 1	Boote, E.	S 4
Balfour, J. D.	S 1	Bothwell, W. K.	E 1
Ball, Miss J. K.	A 3	Bothwell, W. T.	S 3
Ball, Miss M. M.	H.Ec. 2	Bouthillier, P.	S 3
Ballantvne, A. G.	S 4	Bowden, J. W.	S 3
Ballantyne, J. T.	S 1	Bowen, D. H.	A & L 1
Ballhorn, Miss R. D.	Ag 3	Bowen, Miss V. E.	N 2
Bamlett, Miss P. A.	Phm 2	Bowes, Miss E. H.	N 1
Baptie, R. S.	Ag 1	Bowlsby, C. S.	A & M 1
Baptist, K. A.	Ag 2	Bowser, Miss J. V.	A 1
Barber, I. E.	S 4	Bowstead, Miss M. E.	A 2
Barnes, D.	Ag 1	Brandley, R. W.	S 2
Baron, R. B. D.	g	Branscombe, Miss M. A.	A 2
Barrett, L. G.	S 2	Brennan, E. H.	S 1
Barton, J. S.	S 1	Brewerton, S. C.	A & M 2
Bass, Miss K. M.	p	Bridgeman, Miss J.	H.Ec. 2

Brinacomb, A. K.	A 2	Chandler, Miss M. A.	A 3
Brimacombe, G. P.	A 3	Chapman, E. F.	S 1
Brimacombe, M. G.	A 1	Chepeha, J. H.	Ag 1
Brisbin, F. G.	Div	Chesney, Miss W. C.	A 2
Britton, Mrs. Mary	p	Chinn, Miss B. C.	N
Broadfoot, Miss A. L. M.	H.Ec. 1	Chinneck, Miss B. J.	A 2
Brock, Miss C. E.	H.Ec. 3	Chizen, M.	S 2
Bromley, J. E.	S 4	Chizen, S.	S 1
Brookes-Avey, R. W.	S 3	Chomyc, N. A.	Ag 1
Brooks, W. H.	Ag 1	Chonko, M. E.	A & M 1
Brooks, W. H.	p	Christensen, H. C.	S 1
Brown, A. R.	g	Christensen, Miss J. E.	N 1
Brown, F.	S 1	Christiansen, R. G.	A 1
Brown, Miss G. E.	A 3	Christie, H. L.	Ag 3
Brown, G. D.	A & M 2	Christou, G. C.	S 1
Brown, J. A.	S 1	Chrumka, S. J.	S 2
Brown, M. A.	Ag 3	Clark, C. G.	S 2
Brown, R. A.	S 1	Clarke, D. W.	g
Brown, R. K.	g	Clark, Miss F. A.	A 2
Brown, W. E.	Ag 4	Clark, G. F.	A & D 1
Brownlee, J. A.	S 4	Clark, J. W.	A 1
Bruce, W. J.	E 1	Clark, M. W.	S 1
Brumwell, Miss H. J.	N 4	Clark, Miss M. G.	N 3
Bryant, H.	A 1	Clarke, Miss M. A.	N 1
Bryne, J. H.	p	Clarke, R. L.	A 4
Buckley, R. R.	S 2	Clarke, S. C. T.	g
Buchner, H. W.	A 3	Clark, Miss V. L.	N 2
Burge, C. W. M.	S 1	Clark, W. D.	C 2
Burns, C. V.	L 1	Clemis, W. L.	A 2
Burris, J. J.	S 1	Clendenan, Miss M. C.	N 1
Burton, Miss M. R.	N 5	Clendenan, Miss M. E. M.	N 5
Burton, J. F.	S 1	Clooney, Miss S.	E 1
Burwash, Miss I. V.	p	Clow, J. A.	S 1
Burwash, R. A.	A 1	Cochlan, Miss P. H.	H.Ec. 2
Busheikin, J.	A 3	Cochrane, H. C.	A 3
Bussard, L. H.	g	Cody, B. D.	A & M 1
Butterfield, Miss M. J.	H.Ec. 2	Coggles, Miss D. E. R.	A 1
Butteris, Miss B. M.	H.Ec. 2	Collett, W. J.	Div
Byrt, Miss H. L.	N 2	Collier, R. J.	S 4
Caldwell, J. G.	A 3	Collins, B. W.	C 3
Cameron, D. A.	S 1	Colter, J. S.	A 2
Cameron, W. A.	Ag 4	Cony, Miss M. R.	N 1
Cammaert, Miss E. M. L.	N 5	Conybeare, Mrs. V. M.	A 1
Cammaert, Miss M. C. E.	N 4	Cooke, Miss D. A.	N 1
Campbell, A. W.	C 1	Coons, W. H.	A 1
Campbell, D. K.	S 4	Cooper, R. J. G.	A & M 1
Campbell, D. J.	A 1	Cope, Miss G. L.	H.Ec. 3
Campbell, Miss F. E.	H.Ec. 1	Corbett, Miss M. N.	H.Ec. 2
Campbell, G. A. E.	S 1	Corkum, C. J.	A & M 2
Campbell, N. J.	A & M 1	Corkum, M.	S 1
Cannon, Miss E.	N 3	Cormick, H. L.	S 2
Cantelon, Miss B. M.	E 3	Cormie, D. M.	L 1
Cantelon, H. A.	Div	Corns, W. G.	g
Cardell, T. E.	S 4	Coutts, H. T.	g
Carlson, C. G.	S 2	Cowan, J. M.	A & M 2
Carmichael, C. N. G.	Phm 1	Cowley, W. H.	S 1
Carmichael, J. F.	g	Cox, V. R.	S 1
Carr, A. D.	Div	Coxon, Miss M. R.	N 1
Carr, D. B.	Div	Crawford, I. D.	A 2
Carr, L. E.	S 1	Creighton, Miss H. C.	Phm 1
Carr, J. L.	A 3	Critchfield, J. B.	A & M 1
Carr, W. P.	E 3	Crockett, Miss M. A.	N 1
Carrico, H. B.	A 3	Crozier, Miss D. H.	N 5
Carroll, M. N.	A 1	Cudby, E. E.	S 1
Carscadden, T. M.	S 1	Culham, D. I.	A & D 1
Carson, Miss E. I.	A 1	Curllett, C. C.	S 1
Carswell, H. A.	S 1	Cuthbertson, D. L.	A & D 2
Carter, G. W.	Ag 3	Cutts, Miss L. M.	H.Ec. 1
Casault, J. M.	S 4	Cutler, E. J.	S 1
Casey, Miss P. M.	H.Ec. 1	Cuyler, Miss M. N.	N 5
Casper, Miss M. A.	H.Ec. 2	Dafoe, Miss L. M.	N 2
Castelli, L.	S 1	Dahl, Miss B. M.	N 2
Causgrove, Miss B. J.	N 1	Dalsin, G. F.	p
Challis, W. L.	S 3	Dalsin, B. T.	C 2
Chalmers, E. C.	S 1	Dalsin, R. J.	Ag 3
Chamberlain, J. S.	S 2	Daly, Miss D. M.	N 1

Danchuk, E.	S 2	Ellis, R. S.	A 4
D'Appolonia, E.	g	Ells, Miss S. H.	N 1
D'Appolonia, Miss E. I. A.	A 2	Elniski, W. V. F.	A & D 1
Darimont, A. G.	p	Elves, D. W. P.	p
Darling, Miss P. A.	N 1	Empey, Miss E. L.	H.Ec. 3
Darroch, J. G.	g	Enarson, O. E.	S 2
Dau, H. P.	S 1	Engbloom, G. A.	S 4
Davidge, Miss G. C. I.	N 1	Emman, J. R.	A & M 2
Davidson, Miss H. M.	g	Erickson, Miss F. E.	N 2
Davidson, R. M.	A 2	Erickson, S. W.	S 1
Davidson, T. R.	Ag 3	Esaiv, Miss A.	H.Ec. 1
Davies, A. F.	A 2	Evans, H. G. V.	A 3
Davis, C. J. C.	A 1	Ewasiuk, W. J.	S 1
Davis, H. L.	A 2	Ewenson, W. E.	S 1
Davis, Mrs. J.	s	Facey, F. B.	g
Davis, Miss M. A. K.	N 5	Fairbairn, D. O.	S 1
Davis, Miss M. N.	A 3	Fallis, Miss N. E.	A 1
Davison, A.	p	Fallow, Miss V. M.	p
Deakin, S. J.	S 1	Farmilo, C. G.	g
Dean, A. M.	Ag 4	Fawcett, S. V.	Div
Deane, S. G.	p	Fead, J. W. N.	S 2
de Hart, J. E.	L 3	Feader, G. K.	A 1
de Launay, L. H. W.	S 1	Fearnehough, Miss J. D.	N 1
Demetrovits, Miss J. J. S.	A 1	Fellows, J.	S 1
de Palezieux, Miss J. H.	N 1	Fenlak, O. W.	A 1
Depew, J. G.	A & M 2	Fenske, K. G.	S 1
de Pfyffer, Miss H. B.	A 1	Fergie, Miss C. A.	H.Ec. 3
Derby, Miss E. L.	E 2	Ferguson, D. A.	S 2
Des Brisay, R. G.	p	Ferguson, R. M.	S 1
Dewar, F. I.	A 2	Ferguson, W. F.	A 2
Diamond, Miss M. M.	A 3	Fife, Miss H. I.	N 2
Dick, D. D.	S 1	Fillippelli, L. J.	A & M 1
Dick, D. R.	p	Filmer, A. J.	A 3
Dick, J.	S 1	Finley, G. R.	A & M 2
Dick, W.	S 1	Firth, Miss P. S.	H.Ec. 3
Dimock, H. B.	A & M 2	Fish, A. W.	S 4
Dimock, W. R.	S 1	Fisher, Miss G. A.	H.Ec. 2
Dimos, J.	A & M 1	Fisher, L. A.	A & E 2
Dinning, Miss D. E.	N 1	Fisher, L. W.	S 2
Dion, Miss S. J.	A 3	Flavin, N. B.	S 1
Dixon, A. E.	A & M 1	Flint, Mrs. H. B.	g
Dixon, Miss G. E.	N 1	Flynn, J. T.	S 4
Dmytruk, J. W.	S 2	Follett, A. V.	A & M 2
Docherty, Miss M. M.	N 1	Forbes, D. G.	p
Dodimead, A. J.	S 2	Forbes, J. W.	A & M 1
Donald, H. J.	S 1	Ford, G.	g
Donald, J. H. A.	S 3	Forster, J. W.	S 3
Douglas, C. M.	p	Foster, F. M.	A 1
Douglas, Miss D. C.	Phm 2	Foster, Miss F. P.	H.Ec. 1
Douglas, Miss G. E.	N 1	Foster, Miss P. L.	N 3
Downie, G. W.	S 1	Fostvedt, T.	g
Doze, W. E.	S 2	Foxlee, F. H.	g
Drayton, L. E.	A 3	Francis, Miss M. T.	E
Drummond, Miss D. P.	E 1	Frank, N. A.	S 1
Duke, Miss E. M.	H.Ec. 1	Fraser, J. A.	Ag 1
Du Mont, R. F. H.	L 1	Fraser, Miss M. M.	A 1
Duncan, D. D.	A 1	Fraser, Miss P. C.	N 2
Duncan, Miss M. F.	H.Ec. 1	Fraser, R. R.	g
Duncan, N. F.	A & M 1	Fratkin, Miss S. B.	g
Dunk, F. R.	g	Freeborn, Miss E. A.	H.Ec. 3
Dunkley, Miss P.	A 1	French, G. C.	g
Dunsmore, F. G.	S 1	Fricker, Miss L. M.	A 1
Dutka, R. R.	S 3	Fryer, J. F.	A 1
Dutton, J. E.	S 1	Funk, Miss V. K.	N 5
Dyson, Miss M.	N 3	Furhop, Miss L. L.	N 4
East, G. B.	A 1	Furnell, Miss H. R.	N 2
Edgecombe, R. W.	S 1	Gainer, W. D.	Ag 4
Edie, R. W.	S 2	Galbraith, G. H.	S 2
Edwardh, M. O.	g	Galbraith, R. P.	L 3
Edwards, Miss G. M.	N 1	Galloway, K. D.	S 1
Edwards, Miss M. E.	N 4	Gander, J. E.	A 2
Edwards, S. E.	L 3	Gardiner, L. W.	L 3
Eggenberger, G. K.	E 2	Garnsworthy, L. S.	A 3
Eickmeyer, Miss E. M.	N 2	Garvin, J. W.	Ag 3
Elliott, T. C.	S 4	Gauld, Miss M. H.	N 3
Ellis, H. G.	A & M 1	Geake, L. J.	E
		Gee, J. B.	S 1

Gee, K. H.	A 1	Hamilton, R. S.	A 3
Geehan, O. F.	Phm 2	Hanen, S. D.	S 4
Geeson, Miss D. A.	N 3	Hankinson, H. W.	A 3
Genge, C. A.	A 2	Hanna, M. M.	S 3
Gerhart, E. H.	A & M 1	Hannah, M. R.	S 4
George, Miss P. M.	N 2	Hannochko, F.	p
Gerbrandt, C. O.	A 2	Hanson, J. M.	S 1
Gerolamy, S. B.	A & D 1	Harding, D. C.	S 1
Gibson, A. S.	A 3	Hardy, G. E.	A 2
Gibson, J. E.	A 3	Hare, P. A.	Phm 3
Gibson, Miss L. R.	E 2	Hargrave, A. R. C.	S 4
Gibson, W. J.	S 3	Harman, Miss F. M. M.	A 3
Gifford, J. P.	S 2	Harper, A. E.	Ag 2
Gilbert, J. A.	S 1	Harries, H. W.	Ag 2
Gilchrist, H. A.	A & M 1	Harris, J. S.	S 1
Giles, W. M.	S 4	Harris, O. W.	L 2
Gilles, J. W.	g	Harris, R. E.	S 3
Gillis, J. J.	s	Harrison, C. C.	D 1
Gish, H. B.	E 1	Hart, E. O.	Phm 2
Glatiotis, K.	S 1	Hart, K. H.	A 1
Glebe, C. L.	C 3	Hart, W. S.	S 1
Gleddie, I. A.	g	Harvie, D. S.	S 2
Gogek, Miss S.	A 4	Hastings, Miss M. P.	N 3
Gold, H.	A & D 1	Hauptman, S.	S 1
Golden, A. A.	A 3	Haverstock, J. M.	C 3
Goodall, Miss I.	N 4	Hawkinson, Miss E. N.	N 1
Goodison, R. A. C.	A 3	Hawrelak, Miss M. J.	H.Ec. 1
Goodman, N.	S 3	Hawkey, M. W.	Phm 2
Goodman, V. J.	S 1	Hay, W. G.	g
Goodwin, L.	E	Hayes, Miss B. M.	H.Ec. 1
Gordon, Miss B. M.	N 2	Hayes, Miss M. I.	A 2
Gordon, Miss E. M.	Ag 3	Haynes, Miss S. V.	A & M 2
Gordon, H.	S 1	Hazlett, R. J.	A & L 2
Gordon, W. C.	Ag 3	Head, Miss H.	N 1
Gore-Hickman, F. G.	A & M 1	Heath, G. H.	Ag 4
Gorman, A. A.	A & M 2	Hediger, E. P.	S 1
Goto, S.	g	Hedlin, Miss E. S.	N 5
Gouge, J. F.	L 2	Heiberg, Miss L. A.	N 2
Gould, Miss A. P.	A & M 2	Heiberg, S. A.	S 1
Gouin, O. L.	S 1	Heifetz, Miss E.	H.Ec. 2
Govier, Mrs. D. E.	E	Helmer, R. M.	S 1
Govier, G. W.	g	Hemstock, J. R.	S 2
Gow, Miss B. R.	H.Ec. 2	Hemstock, R. A.	S 4
Graham, E. S.	S 1	Henderson, D. H.	A & M 1
Graham, Miss M.	H.Ec. 1	Henderson, Mrs. R. W.	g
Graham, T.	Phm 2	Henderson, Miss G. R.	N 1
Graham, V. E.	A 2	Hepburn, A. L.	A & M 1
Granger, W. J. A.	A 1	Herman, Miss K. A.	N 5
Grant, Miss B. A.	H.Ec. 1	Herzog, G. W.	S 1
Grant, Miss M. J.	H.Ec. 3	Heseltine, C. H.	L 2
Grant, M. N.	Ag 3	Hess, G. R.	S 3
Graves, D. C.	S 2	Hewko, J.	A 2
Gray, H. D.	S 1	Hewson, Miss D. M.	A 2
Gray, R. J.	S 1	Heywood, Miss M. E.	E
Greenaway, A. M.	A & D 1	Hill, A. W.	Ag 2
Greenwood, M. C.	S 2	Hill, R.	Ag 3
Gregory, J.	S 2	Hiller, A. G.	A & L 1
Grieve, R. W.	A & M 1	Hiller, W. A.	S 4
Grunert, Miss M.	N 1	Hills, V. D.	Ag 3
Grunert, R. R.	A 2	Hinchey, Miss C. E.	g
Gschwendtner, D. J.	S 1	Hinman, W. C.	Ag 3
Guebert, A.	g	Hislop, R. H.	S 1
Guild, Miss D. J.	N 2	Hodgson, G. W.	A 1
Guitard, A. A.	Ag 3	Hofman, T. E.	Ag 1
Gunn, I. M.	A & M 1	Hogg, Miss N. J.	H.Ec. 2
Gurevitch, B.	L 2	Holdom, Miss F. E. L.	H.Ec. 2
Guttman, H.	S 1	Hold, H.	S 3
Gylander, J. R.	Ag 4	Hole, R. W.	S 3
Hager, R. B.	A & D 1	Hollies, N. R. S.	A 3
Hahn, J. W. V.	A 4	Hollingshead, R. J.	S 1
Hall, H. B.	A & M 2	Hollm, E. R.	S 2
Hall, H. H.	A 3	Holmberg, H. B.	S 4
Hall, J. W.	g	Holmes, N. D.	Ag 4
Hamblly, Miss E. M.	Phm 2	Holowaychuk, Miss C.	N 2
Hamblly, J. R. S.	g	Holowaychuk, Miss P.	N 4
Hamel, H. H.	A 2	Holtzman, Miss M. S.	H.Ec. 1

Hood, W. R.	s	Kaiser, Miss M. J.	H.Ec. 1
Hooper, Miss I. M.	N 1	Kapuscinski, Miss A.	N 3
Hoppe, Miss H. C. G.	N 3	Karpoff, T. M.	g
Horne, Miss J. V. E.	N 4	Karsh, Miss E.	A 3
Horodezky, A. M.	A 2	Kaser, R. G.	A 2
Houlgate, J. E.	S 1	Kastelic, J.	Ag 3
Howard, H. A.	S 1	Kasten, H. L.	S 1
Howarth, Miss G. M.	A 1	Kasting, R.	Ag 1
Howey, M. W.	L 2	Kelly, Miss K. D.	H.Ec. 3
Hoyle, W. G.	S 4	Kelly, W. B.	A & L 2
Huff, K. F.	A 3	Kembel, Miss D. B.	N 1
Hughes, J.	g	Kendel, Miss E. M.	A 2
Hughes, Miss M. M. E. R.	A 2	Kennedy, D. S.	A 3
Hulbert, Miss M. C.	N 1	Kennedy, G. B.	C 3
Humphreys, J. T.	A 2	Kennedy, Miss H.	A 1
Hunter, Miss E. J.	N 1	Kennedy, Miss L. L.	g
Hurlburt, Miss M. A.	H.Ec. 3	Kennedy, Miss M. J. S.	N 1
Hurlburt, R. G.	A & M 1	Kennedy, Miss M. E.	C 1
Hutchinson, G. M.	Div	Kenwood, J. W.	Ag 2
Hutchison, Miss J. K.	C 2	Keough, Miss M. A.	H.Ec. 1
Hutter, J. F.	S 1	Kerkoff, L. F.	S 1
Hutton, G. A.	S 2	Kerr, Miss E.	E
Hutton, H. G.	S 1	Kershaw, A.	A 3
Hyndman, Miss H. D.	A 1	Kidd, Miss K. M.	N 2
Ikata, Miss L. M.	A 1	Kiefer, Miss R. B.	p
Ingram, Miss R. A.	N 4	Kimmitt, P. J. E.	p
Irving, Miss J. A.	N 2	King, C. W.	Phm 2
Isaacson, C. T.	S 1	King, Miss E. M.	A 1
Ives, T. O.	L 3	Kirby, W. J. C.	s
Iwashita, Miss T.	A 1	Kirk, Miss D. M.	A 2
Iwashita, Miss Y.	A 1	Kirkvold, C. F.	S 1
Jacka, R. C.	A 4	Kittlitz, R. S.	S 1
Jackson, A. W.	g	Klapauszak, M. A.	S 1
Jackson, A. W.	a	Klimove, M.	C 1
Jackson, R. R.	S 3	Knight, Miss L. P.	A & L 1
Jackson, W. B.	S 2	Knoll, G. F.	S 1
Jacobs, F. M.	E 2	Knoll, Miss M. L.	A 1
Jacobson, H. A.	A & M 1	Knudsen, J. G.	S 4
Jacques, M. L.	C 1	Koshuta, J. Z.	A & L 2
Jamieson, A. C.	Ag 1	Kostash, W.	g
Jamieson, Miss E. W.	N 1	Krause, V. W.	A & M 1
Jamieson, J. R.	A 3	Kravetz, A. J.	S 2
Jamieson, R. D.	S 4	Kristjanson, K.	Ag 4
Jamison, Miss H. E.	N 5	Kroening, R. A.	Phm 2
Jamison, R. S.	C 2	Krpan, I.	A 1
Jantzie, Miss J. I.	N 1	Kruger, J. E.	A 2
Jegard, Miss P. G.	H.Ec. 2	Krueger, M. W. H.	A 3
Jegard, Miss S.	H.Ec. 2	Krys, Miss E. J.	A 1
Jenken, W. B. L.	A 2	Kudryk, V.	S 1
Jenkins, B. C.	g	Kunelius, Miss H.	N 3
Jensen, H.	S 4	Kurysh, W. D.	p
Jepson, Miss S. E.	Phm 2	Kuzmar, J.	E 3
Johannson, E. F.	S 1	LaBrie, F. E.	L 3
Johnston, Miss B. L.	N 2	Lamb, R. H.	S 1
Johnstone, Miss B. J.	H.Ec. 2	Lambert, L. J.	S 4
Johnson, C. B.	g	Lampitt, A. W.	Ag 4
Johnson, E. W. M.	A & M 2	Lapp, G. S.	p
Johnson, Miss E. E. H.	A & E 3	Lapp, I.	Ag 4
Johnson, J. A.	C 3	LaRose, D.	A & D 1
Johnson, Miss M.	A 2	Larson, A. J.	A & D 1
Johnson, M. A.	Div	Larson, B. J.	A & M 2
Johnson, Miss O. E.	C 1	Larson, Miss H. I.	N 2
Johnson, R. L.	A & M 1	Larson, Miss H. L.	H.Ec. 3
Johnson, R. V.	S 1	Larue, G. A.	A 3
Jones, E. M.	g	Lastiwka, R.	A & M 2
Jones, Miss G. V.	A 1	Lauerman, J. M.	A & M 1
Jones, J. H.	p	Lauriente, J.	S 2
Jones, Miss M. O.	A 2	Law, D. G.	S 4
Jones, Miss M. L. P.	A 2	Layton, L. R.	A 1
Jones, O. J.	S 2	LaZerte, J. D.	S 3
Jones, W. S.	S 1	LaZerte, R. M.	S 1
Jorgens, J. R. S.	Ag 2	Lazo, R. M.	S 1
Jorre de Saint-Jore, E.	A & L 2	Lebel, L.	L 3
Joslin, Miss J. R.	N 1	Leboldus, F. J.	A & D 1
Joslin, W. L.	A 2	Leeder, F. D.	S 1
Judge, D. L. C.	A 1		

Leeder, J. R.	A & M 1	MacDonell, Miss M. T.	H.Ec. 1
Legge, N. R.	g	McDonough, T. D.	S 2
Lemieux, R. U.	A 4	McDougall, Miss H. S.	H.Ec. 2
Leonidas, T. A.	S 1	Macdougall, Miss J.	N 1
Lepsoe, R.	A & M 2	McDougall, R. L.	S 2
Lesick, W. G.	A & D 1	McEvoy, F. J.	C 1
Levine, L. B.	S 1	McFarland, H. D.	S 1
Leviston, C. W.	L 2	McFarlane, J. K.	C 2
Lewis, G. W.	S 1	McGavin, Miss I. R.	A 2
Lewis, R. G.	S 2	McGinnis, A. J.	Ag 1
Lieber, F. S.	S 1	McGorman, A. R.	A 1
Lind, Miss J. K.	A 3	MacGregor, H. A.	p
Linney, J. A.	S 1	Macgregor, Miss D. I.	H.Ec. 2
Lipinsky, J.	A & M 1	McGuire, Miss N. A.	A 1
Liss, S. F.	S 1	McIlveen, J. B. G.	A 2
Lister, R. R.	Ag 1	McIntyre, R. G.	p
Little, H. G.	S 1	McIntyre, Miss S. B.	H.Ec. 2
Little, M. W.	A & M 2	McKay, D. E. A.	S 2
Little, Miss S.	A 3	Mackay, Miss D. E.	A & M 2
Livingstone, D. D.	S 3	McKay, J. R.	A 3
Lobay, W.	Ag 2	Mackay, J. A.	A 3
Lockerie, Miss M. A.	Ag 4	McKay, Miss M. E.	N 3
Lofts, Miss E. I.	N 1	McKeague, S. V.	S 1
Longman, Miss E.	E	McKechnie, Miss M. C.	Phm 2
Longmire, Miss L. M.	E 1	MacKenzie, G. J.	g
Longworth, J.	S 2	Mackenzie, R. B.	S 2
Loree, A. E.	A 3	Mackintosh, M. F.	C 1
Lorsbach, H. E.	Div	McKirdy, Miss M. M.	H.Ec. 1
Loshack, S.	S 2	McLean, C. D.	S 1
Lough, Miss M. C.	A 3	McLean, Miss G. M.	H.Ec. 2
Lougheed, N. E.	g	MacLean, Mrs. J. E.	g
Love, D. P.	S 1	McLean, J. C.	S 1
Love, E. P.	S 2	MacLeod, B. M.	A 2
Low, D. R.	S 1	MacLeod, J. W.	S 1
Low, Miss L.	H.Ec. 2	McLeod, L. A.	g
Low, R. D.	S 1	Macleod, Miss M. F.	A 3
Ludwig, Miss M.	N 5	McLeod, Miss M. A.	H.Ec. 3
Lukawesky, T.	S 4	Macleod, Miss M. J.	N 2
Lukenchuk, J. J.	A & M 1	Macleod, W. E.	A & M 1
Lutsky, B.	A 2	McManus, R. N.	g
Lyman, L. P.	A 1	McMillan, D. W.	A & M 1
Macalister, Mrs. I. M.	A 1	MacNab, Miss K.	g
McArthur, D. S.	a	McNichol, J. B.	A & D 1
McBain, A. R.	S 1	McPhail, J. N.	C 2
McBain, Miss D.	g	McPherson, J. D. P.	S 4
McBride, Miss A. B.	N 3	MacQuarrie, K. T.	E 1
McBride, I. F. B.	S 1	MacQueen, Miss M. L.	A 2
McBride, J. M.	S 3	McRae, Miss S. C.	A 1
McCaffrey, Miss E. H.	H.Ec. 2	Machon, Miss A. B.	A 2
McCaig, Miss J. I.	A 3	Maday, W. W.	Phm 3
McCalla, R. I.	A & M 1	Maglio, T. W.	g
McClary, N. E.	S 4	Mahony, J. J.	A 1
McClary, R. E.	S 1	Main, W.	Ag 3
McCollister, Miss L. A.	A 2	Mallabone, Miss C. M.	E 1
McConnell, C. J.	S 2	Mallabone, J. E.	S 1
McConnell, W. B.	A 1	Malton, Mrs. V. E.	g
McCormack, W. B.	A 3	Manifold, A. H.	S 2
McCorquodale, M. E.	S 3	Mann, K.	A 3
McCoy, Miss E. A.	A 4	Manners, Miss F. G.	N 1
McCracken, D. J.	S 2	Manyluk, A. F.	S 2
McCracken, D. P.	S 2	Margolis, Miss S.	H.Ec. 1
McCuaig, Miss R. E.	H.Ec. 3	Markin, R.	A & M 1
McCullough, Miss H. E.	A 1	Markstad, Miss E. L.	N 4
McCune, V. E.	S 1	Marr, T. R.	S 3
McDiarmid, L. G.	S 4	Marshall, D. M.	S 3
McDiarmid, R. B.	S 3	Martin, Miss J. I.	C 3
MacDonald, C. A.	A 1	Martin, W. D.	S 3
MacDonald, D. L.	S 3	Martin, W. E.	a
MacDonald, Miss F. M.	H.Ec. 3	Mason, Miss F. T.	N 3
MacDonald, H. J.	S 1	Mason, Miss M. B.	E
MacDonald, J. D.	p	Massie, Miss J. L.	A 2
MacDonald, J. D.	A 2	Massing, O.	p
Macdonald, Miss K. L.	N 3	Masters, W. C.	Phm 2
Macdonald, Miss M.	H.Ec. 1	Mathers, G. W. C.	S 1
MacDonald, W. D.	A 1	Mathers, F. F.	S 4
MacDonnell, C. A.	S 1	Matkin, B. W.	p

Matthews, C. F.	Phm 1
Maybin, J. E.	S 1
Mayhood, J. E.	S 1
Mazuryk, W.	S 1
Meade, M. D.	p
Medd, W. J.	S 1
Melling, Miss D. S.	N 2
Mercer, C. S.	S 3
Merrick, Miss M. A.	A 2
Merry, Miss A.	N 5
Meston, A. F.	C 3
Metcalf, Miss M. J.	N 1
Metcalf, Miss M. I.	N 1
Mewha, Miss P. A.	H.Ec. 1
Michael, Miss A. M.	p
Michael, Miss A. K.	E 3
Michie, C. G.	S 1
Might, Miss M. C.	H.Ec. 1
Miles, E. R.	S 1
Miller, A. K.	C 2
Millar, Miss J. I.	N 5
Miller, D. M.	A 2
Miller, E. J.	A 2
Miller, Miss E. E.	N 3
Miller, Miss H. A.	A 3
Miller, H. E.	s
Miller, V. B.	S 1
Milton, J. A. D.	A 3
Miner, S.	S 3
Misener, Miss M. J.	C & E 1
Mitchell, Miss A. M.	N 2
Mitchell, Miss N. J.	A 1
Montalbetti, R.	S 1
Montgomery, Miss A. A.	A 2
Montgomery, Miss D. F.	C 1
Montgomery, Miss E. M.	A 3
Montgomery, Miss J.	a
Montgomery, W. G.	g
Moon, J. C.	S 4
Moore, A. L.	S 3
Moore, Miss F. M.	N 4
Moore, Miss H. C.	H.Ec. 2
Moore, Miss H. P.	A 2
Moran, Miss K. M.	H.Ec. 1
Morgan, Miss M.	A 3
Morris, E. J.	S 1
Morrison, Mrs. A. L.	A 1
Morrison, Mrs. H. R. C.	p
Morrison, Miss B. E.	H.Ec. 3
Morrison, L. F.	S 4
Mortimer, D. C.	A 2
Morton, Miss N.	N 3
Moss, Miss M. S.	A 1
Muir, Miss N. L.	N 1
Murphy, E. F.	C 2
Murphy, J. A.	A 2
Murphy, J. B.	S 4
Murray, Miss E. M.	p
Murray, J. F.	S 1
Murray, Miss S. J.	H.Ec. 3
Myers, J. E.	S 3
Nagata, Miss F. R.	C 1
Nagata, Miss S. M.	A 2
Naldrett, H.	S 3
Narbeske, E. M.	Phm 3
Nay, M.	A 1
Nelson, D. R.	Ag 3
Nelson, L. W.	S 2
Nelson, R. D.	A 1
Nelson, S. R.	S 1
Nelson, W. A.	A 3
Ness, Miss M. E.	H.Ec. 1
Ness, Miss S.	A 2
Newhall, S. O.	S 3
Nicol, A. J.	A 3
Nichol, J. C.	A 4

Nicholls, J. H.	S 2
Nicholls, K. A.	Ag 3
Nichols, Miss C. M.	H.Ec. 3
Nicholson, G. J.	A & M 1
Nickerson, G. K.	A & M 1
Nielsen, E. L.	Ag 4
Nigro, R. M.	L 3
Nishio, N. K.	A & D 1
Nishioka, G.	A 2
Nix, J. E.	A 2
Nonnecke, I.	Ag 2
Noon, Miss R. I.	N 4
Norem, D. M.	Ag 1
Northey, J. L.	A 2
Nozick, M. M.	p
Nyberg, V. R.	A 2
O'Brien, J. A.	A & M 1
O'Callaghan, Miss J. M.	N 1
O'Connor, Miss A. M.	N 2
O'Connor, J. B.	L 3
Oestreich, Miss M. M.	A & E 1
Offenbacher, P. M.	A & M 2
Ogilvie, J. R.	S 1
O'Hara, F. P.	A 1
Olsen, A. A.	D 1
Olsen, E. C.	S 4
Olson, G. R.	Ag 4
Olstead, Miss J. E.	N 1
Olyan, J. M.	A 1
O'Neill, G. J.	S 1
Orme, Miss H. E.	N 4
Orobko, J. A.	A & D 1
Osborne, J. A.	A & M 2
Ossendeth, Miss M. L.	H.Ec. 1
Oswald, Miss I. B.	E 2
Otterson, F. E. G.	A 2
Owen, D. H. L.	S 1
Oxland, Miss M. J. S.	A & E 1
Panchysyn, E. J.	S 3
Pallister, Mrs. M. A.	A 2
Papas, Miss E.	H.Ec. 1
Parada, S. F.	A 2
Parry, J. O.	A 3
Parsons, A. N.	s
Parsons, Miss M. B.	A & E 2
Pascuzzo, G. A.	C 1
Patching, E. A.	Ag 2
Paterson, J. L.	A & M 1
Paul, Miss J. I.	S 1
Pawluk, Miss E. R.	H.Ec. 3
Payne, J. W.	C 3
Payne, W. R.	Ag 1
Peacocke, Miss A. J. H.	N 2
Peacock, H. E.	S 1
Peacock, Miss M.	N 2
Pearson, Miss L. E.	C 2
Pearson, Miss M. J.	C 2
Pearson, Mrs. V. P.	N 1
Pearson, Miss Y. R.	H.Ec. 2
Peers, F. W.	g
Pemberton, J. E.	p
Penley, J. K.	Phm 2
Penrowley, R.	N 1
Penzer, J. N.	A & D 1
Peppre, Miss A. E.	H.Ec. 1
Perdue, Miss E. M.	H.Ec. 1
Pergamit, H.	A 3
Perrott, W. B.	S 1
Perry, D. H.	S 1
Peterson, B. N.	S 1
Peterson, Miss E. M.	C 3
Peterson, W. S.	g
Perringer, D. W.	S 1
Phillips, Miss J.	Phm 1
Phillips, Miss O. M.	A 3
Phillips, R.	a

Piard, J.	S 1	Roberts, D. M.	S 2
Pierce, Miss C. E.	A & E 1	Roberts, G. W.	E 1
Piercy, Miss D. H.	N 2	Robertson, G. R.	A & D 1
Pike, Miss K. M.	A 1	Robertson, Miss M. M.	A 3
Pinch, Miss J. A.	N 2	Robertson, Miss P. R. M.	A 1
Plasteras, Miss H.	C 1	Robertson, R. W.	A & M 2
Podgurny, M.	S 2	Robertson, W. H.	S 1
Pollack, H.	A & M 1	Robinson, P. J.	S 1
Poohkay, P.	s	Robock, L. H.	S 1
Poole, G. E.	S 4	Robson, J. H.	Ag 1
Poole, J. L.	S 1	Rodney, Miss F. E.	H.Ec. 1
Preboy, A. H. P.	S 1	Rodnunsky, H. B.	Ag 3
Preboy, Miss E. E.	H.Ec. 1	Rogers, E. M.	S 1
Price, R. G.	S 1	Rogers, S. R.	S 1
Pringle, K. D.	A 2	Roginsky, Miss A. L.	A 1
Pringle, R. B.	A 3	Romane, J. W.	A & M 1
Pritchard, B. M.	A 1	Rookwood, R. M.	S 1
Pritchard, Miss J. A.	C 1	Ropehan, Miss M.	N 3
Proctor, W. C.	Ag 3	Rorke, Mrs. M. Y.	A 1
Proudfoot, R. G.	S 1	Rosborough, Miss G. E.	N 2
Provenzano, M. A.	A & L 2	Rosenthal, A.	A 3
Pryde, J. M.	S 1	Roshko, A.	S 2
Puchalik, J. W.	E 1	Ross, A. H.	S 2
Pulleyblank, E. G.	A 2	Ross, J. G.	g
Purnell, D. C.	Ag 1	Ross, Miss J. E.	A 2
Purves-Smith, J. R.	s	Rothe, F. A.	A & M 1
Purvis, R. D.	C 2	Rousseau, Miss J. E.	A & M 1
Purvis, S. S.	L 3	Routledge, Miss P. M.	N 4
Putnam, N. F.	Ag 3	Rowan, Miss S.	N 1
Pybus, Miss D. L.	E 2	Rowan, W. O.	S 3
Pylypiuk, S. E.	A & M 2	Rowe, R. J.	A 3
Pyrch, A.	Ag 1	Rubin, A.	S 2
Pyrch, Miss X.	N 1	Rubin, H. H.	A 1
Quigley, F. H.	C 1	Rudzik, Miss E.	A & M 1
Quigley, J. J.	A 3	Russell, J. D.	S 1
Quinn, Miss L. F.	H.Ec. 2	Russell, L. R.	A 2
Quon, D.	S 3	Russell, Miss M. H.	A 1
Radford, L.	p	Russell, R. M. C.	Ag 1
Raffa, P.	A & E 1	Rust, R. S.	Ag 1
Randle, Miss E. M.	E 1	Rutledge, S. E.	S 1
Randle, Miss L. F.	E 1	Ryan, Brother J. M.	g
Rappel, H. T.	S 3	Ryski, L. J.	S 3
Raskin, J. C.	A & L 2	Sage, Miss N. F.	N 5
Rath, O. J.	A & M 2	Samuels, V.	A 3
Ravenscroft, Miss E. M. D.	A 2	Sanden, E. J.	S 1
Rea, H. J.	S 1	Sanderson, Miss G.	N 2
Rear, Miss E. L.	N 4	Sather, R. L.	S 3
Redd, Miss G.	E 1	Saul, Miss M. B.	N 5
Ree, Miss J. M.	A 3	Scammell, E. R.	S 4
Rees, D. L.	A & M 1	Schlag, Miss M.	N 1
Rees, R. E.	s	Schlang, H. R.	A 1
Reesor, J. W. B.	A 3	Schneider, Miss M. I.	N 3
Reid, Miss L. M.	E 1	Schrader, R. C.	L 2
Reid, T. L.	A 1	Schumacher, L. J.	S 1
Reid, Miss W. K.	N 4	Scott, D. S.	S 3
Reiten, S. V.	S 4	Scott, Miss G. G.	N 1
Remington, Miss H. M.	N 1	Scott, I.	S 1
Renner, R. W.	Ag 2	Scrimshaw, Miss M. J.	N 1
Reynolds, R. M.	g	Seaman, Miss E. M.	A 3
Reynolds, R. R.	A 1	Segall, G. H.	A 4
Richardson, A. J.	S 1	Seikirk, Miss J. E.	H.Ec. 2
Richardson, L. A.	A & D 1	Sellhorn, Miss C. E.	N 3
Richardson, R. C.	S 2	Semak, Miss A. H.	E 1
Riddle, W. J.	A & M 1	Sereda, J. I.	Phm 2
Riedel, B. E.	Phm 3	Sereda, P. J.	S 4
Riep, A. R.	s	Sereda, S.	g
Riffel, M. A.	A & D 1	Setters, J.	S 2
Rigby, F. L.	g	Settle, J. R.	A & M 1
Rigney, H. A.	Ag 3	Shacker, H. E.	A 1
Rimmer, W. R.	A 1	Sharpe, R. W.	A 2
Ringdahl, R.	E 2	Shaw, A. C.	A 2
Ripley, C. F.	S 3	Shaw, A.	C 1
Ritchie, Miss M. E.	L 3	Shaw, Miss M.	H.Ec. 3
Ritz, C. R.	Phm 3	Shaw, Miss P. E.	N 2
Robblee, A. R.	Ag 3	Shaw, R. J.	Phm 2
Robblee, J. S.	Ag 2	Sheahan, Miss M. A.	A & M 1

Sheane, J. R.	Ag 1	Stanley, R. F.	A & M 1
Sheasby, Miss K. E.	A & E 1	Staples, Miss M. J.	H.Ec. 3
Sheldon, Miss E.	N 2	Starr, N.	S 2
Shelton, F. D.	A 2	Steed, D. L.	Ag 1
Shelton, Miss K. M.	g	Steedman, Miss D. T.	N 4
Shemeluck, M. D.	Ag 4	Stefanelli, J.	A & M 1
Sherbeck, L. H.	A 3	Stehelin, E. C.	p
Shevchishin, E. S.	A 3	Steilo, C. E.	C 1
Shewchuk, G.	Ag 2	Stelck, Miss M. K.	A 2
Shewfelt, A. L.	g	Stemp, Miss J. L.	H.Ec. 1
Shipley, J. M.	L 3	Stephens, Miss M. M.	N 1
Shkwarok, W. F.	E 2	Stevenson, Mrs. J. S.	H.Ec. 2
Shockter, J. H.	A & L 2	Stevinson, A. L.	S 2
Shonn, F. C.	g	Stevinson, H. T.	p
Shortreed, Miss M. E.	H.Ec. 1	Stewart, Miss D. J.	A 1
Sigal, S. J.	S 1	Stewart, G. C.	C 1
Sikal, J.	S 1	Stewart-Irvine, Miss A. M.	H.Ec. 1
Simonson, H. D.	Ag 4	Stewart, M. D.	S 1
Simonton, R. G.	S 2	Stewart, P. E.	C 1
Simovitch, M.	p	Stewart, W. C.	p
Simpson, F. J.	Ag 3	Stinton, A. W.	A 4
Simpson, H. S.	S 1	Stirling, A. L.	S 2
Simpson, J. L.	S 4	Storey, D. J.	S 3
Simpson, K. M.	A & D 1	Stothert, W. D.	S 2
Simpson, W. S.	A & M 1	Stranatka, J. T.	Ag 4
Sinclair, D. L.	S 1	Stratte, O. A.	A & E 2
Sinclair, Miss J. B.	H.Ec. 2	Stratton, J. J.	A & L 1
Sinclair, S. R.	S 3	Sturgeon, Miss E. H.	N 4
Sinoski, D. A.	S 4	Sutherland, Miss L. M.	H.Ec. 3
Sissons, T. A.	S 1	Sutherland, Miss M. W.	A 2
Sissons, W. J.	S 1	Sutherland, R. M.	Div
Six, I. M.	S 4	Swann, J. F.	s
Skelton, Miss M. D.	A 3	Swann, R. H.	p
Skene, A. W.	S 1	Sweet, Miss A. A.	N 1
Skenfield, Miss E. M.	A 2	Swenson, A. L.	Ag 1
Skuba, M.	E	Switzer, J.	S 3
Slen, S. B.	Ag 4	Sylvest, A. C.	S 1
Slevinsky, A.	A 3	Sr. M. Ernestine	p
Sluzar, R. D.	A 2	Taft, W. E.	A 3
Smalley, Miss M. C.	N 4	Tait, J.	p
Smathers, Miss M. A.	N 1	Tanner, Miss D. E.	H.Ec. 1
Smith, A. J.	A 1	Tanner, Miss E. M.	E 2
Smith, C. D.	S 2	Tanner, R. M.	C 2
Smith, D. Mc. K.	S 1	Taylor, Miss D. M.	H.Ec. 1
Smith, D. M.	S 4	Taylor, D. K.	g
Smith, Miss D. M.	H.Ec. 1	Taylor, H. G.	A & M 2
Smith, Miss E. M.	S 1	Taylor, J. W.	Ag 3
Smith, G. W.	A 2	Taylor, Miss M.	N 1
Smith, I.	S 4	Taylor, Miss M. I.	C 1
Smith, Miss J. L.	Phm 1	Templeton, C. H.	S 4
Smith, Miss K. E.	E 1	Teskey, H. G.	s
Smith, K. G.	S 4	Teskey, R. H.	S 2
Smith, L. E.	S 4	Tetzloff, Miss E. L.	N 4
Smith, Miss L. J.	N 2	Therrien, Miss K. G.	E 1
Smith, L. M.	Ag 4	Thomas, Miss A. R.	N 2
Smith, Miss M. B.	A 2	Thomas, Miss B. E.	H.Ec. 1
Smith, Miss M. B.	A 1	Thompson, Miss B. E.	A 2
Smith, Miss M. L.	A 3	Thomson, Miss C. J.	H.Ec. 1
Snell, M. L.	A 3	Thompson, Miss D. M.	C 3
Snow, Miss G. Y.	A & M 1	Thomson, D. B.	Phm 2
Snowball, J. W.	S 1	Thomson, Miss D. J.	A 3
Snowdon, A. A.	A 2	Thompson, H. C.	p
Soby, Miss D. E.	E 1	Thompson, J. M.	S 1
Soldan, Miss H.	H.Ec. 3	Thompson, Miss K. E.	H.Ec. 1
Soley, R. O.	S 1	Thompson, Miss M. M.	A 3
Soley, R. L.	A & M 1	Thompson, Miss H. V.	A 2
Soper, Miss M.	H.Ec. 2	Thorn, G. D.	A 4
Souch, Miss M. V.	C 1	Thorn, J. A.	A 1
Spackman, R. D.	A & M 1	Thorsen, L. A.	g
Sparrow, D. W.	Ag 1	Tilleman, P. D.	A 1
Sparrow, H. S. G.	S 4	Tipman, E.	p
Spillios, J.	A 1	Toma, M. G.	A & E 2
Sproston, Miss P. M.	N 1	Tomasky, G.	p
Sproule, N. G.	Phm 2	Torrance, K. J.	Ag 1
Staines, J. H.	A & D 1	Torrance, Miss M. J.	N 1
Standerwick, R. C.	Div	Toshach, Miss P.	N 1

Toshach, Miss S.	H.Ec. 3	Whitehead, G. A.	Ag 3
Totton, Miss V. O.	A 3	Wholey, Miss M. A.	Phm 1
Tougas, G. R.	A 4	Wilde, Miss M.	E 1
Towerton, Miss E. E.	g	Wilkins, E. B.	S 4
Tracy, J. M.	g	Williams, Miss D. L.	H.Ec. 2
Trainor, W. J.	A 3	Williams, D. O.	A 3
Tregale, Miss E. E.	A 3	Williams, L. J.	A 1
Trost, W. R.	A 3	Williams, Miss M. B.	H.Ec. 2
Trout, Miss K.	A 1	Williamson, Miss I. H.	H.Ec. 3
Tuck, N. G. M.	S 3	Williamson, Miss M. I.	H.Ec. 3
Twidale, F. T.	S 1	Williamson, W. M. S.	S 1
Tyler, G. M.	S 2	Willis, R. C.	S 1
Ubertino, D. J.	C 1	Willox, Miss A. C.	E 1
Varseveld, G. W.	Ag 1	Willson, B. F.	S 4
Vickery, Miss K. J.	g	Wilson, D. E.	Ag 1
Vogel, C. K.	Div	Wilson, Miss E. A.	A 2
Wachowich, L. S.	S 1	Willson, J. N.	A 2
Waddell, Miss D. R.	A 1	Willson, Miss M. M.	A 2
Wagner, A. W.	S 1	Wilson, Miss M. E.	N 2
Waldret, Miss N.	N 3	Wilson, R. A.	C 2
Walker, A. E.	A 2	Wilson, R. D.	A & M 1
Walker, L. A.	S 2	Wiltse, H. L.	E 2
Walker, N.	S 4	Wiltzen, Miss D. F.	N 1
Walker, R. H.	A & M 1	Winning, M. D.	S 1
Walker, W. A.	A 1	Wize, Miss T. C.	A 1
Wallace, R. G.	p	Wolfe, E. M.	C 2
Wallis, Miss L. M.	g	Wolochow, D. M.	Phm 2
Ward, S. H.	A 1	Wong, G. L.	A & M 2
Ward, C. M.	A 3	Wood, J. R.	S 4
Wark, R. R.	A 2	Woods, K.	Ag 3
Warner, Miss M.	Phm 1	Woodworth, Miss M. E.	H.Ec. 3
Warren, Miss M. I.	H.Ec. 2	Woronuk, M.	A & D 1
Warshawski, Miss F. G.	A & M 1	Worthington, W. T.	S 3
Warshofsky, Miss M. D.	E 1	Wright, D. D.	S 1
Watterberg, Miss N. L.	A 3	Wright, S. R.	S 1
Watts, R. F.	Div	Wright, W. G.	S 3
Webb, J. A.	S 3	Wytsma, D.	S 1
Weber, G. L.	C 1	Yachimec, P.	S 1
Webster, A. L.	C 1	Yahnitzki, Miss A.	N 1
Weder, Miss M. E.	N 4	Yasheyko, M. J.	S 2
Weeks, J. G.	S 2	Yates, J. C.	A 3
Weigel, Miss M. L.	a	Yavis, Miss M.	C 1
Weins, E. A.	A & M 1	Yelle, E. F.	A & M 2
Weir, G. R.	S 2	Young, Miss J. B.	N 2
Weldon, Miss D. N.	A 1	Young, Miss N. K.	A 3
Weldon, R. C.	g	Young, R. A.	A & M 1
Wellman, V. H.	Phm 2	Young, R. G.	A 3
Wells, A. F.	S 2	Younger, K. S.	Ag 1
Westlake, J. R.	L 3	Zimmerman, Miss L. H.	L 3
Wetter, L. R.	Ag 3	Zowtiak, J.	S 1
Wetterberg, D. C.	S 4	Zuckerberg, Miss A. M. R.	A 1

ACCELERATED EDUCATION

May-September, 1942

Adamcik, J. R.	Hutton, Miss J. C.
Anderson, Miss M. M.	Kendrick, W. M.
Bowden, F. N.	Lavallee, M.
Brown, Miss E. D.	Legate, Miss M. L.
Campbell, Miss M. M.	Lynn, Miss M. S.
Clow, W. L.	McKirdy, M. A.
Craig, Miss V. B.	Molloy, Miss M.
Davies, Miss A. V.	Moore, Miss M. C.
Dixon, Miss J. L.	Nagler, Miss C. R.
Doell, R. E.	Paterson, J. C.
Dubetta, J. C.	Radke, E. E.
Duggan, Miss G. L.	Rieger, Miss B. C.
Embree, D. G.	Samoil, R.
Fowler, Miss J. A.	Shields, L. J.
Govier, Mrs. G. W.	Vickery, Miss G. L.
Greene, Miss J.	Viney, Miss F. M.
Hanna, Miss E. J.	Yott, R. J.

ACCELERATED MEDICINE

June-December, 1942

Acton, W. C.	M 4	Graham, G. G. K.	M 4
Agnew, G. A.	M 5	Graham, Miss K. S.	M 6
Aikenhead, J. F.	M 5	Graham, O. H.	D 4
Allard, C. A.	M 5	Gray, A. R. S.	D 5
Amundsen, L. R.	M 4	Green, K.	M 3
Armstrong, H. R.	M 5	Gridale, L. C.	M 1
Ayre, W. B.	M 5	Hackie, Ted	D 5
Baker, P. L.	M 1	Hardin, I.	M 5
Balfour, G. S.	M 6	Harrison, R. C.	M 5
Barclay, W. R.	M 1	Hauck, O. S.	D 5
Beauchamp, L. E.	M 1	Hemstock, J. W.	M 4
Bell, D. M.	M 6	Hudson, P. W.	M 6
Bell, D. M.	M 4	Hugill, Miss J. T.	M 1
Bennett, W. L. L.	M 1	Huston, M. J.	g
Berezan, D.	M 5	Jackson, J.	D 2
Blackmore, R. V.	D 5	James, T. W.	D 1
Blaquiere, R. H.	D 2	Janzen, J.	D 4
Bloom, L.	D 4	Johnston, D. C.	M 4
Boileau, G. R.	M 1	Johnston, L. W.	M 4
Bolocan, H.	M 4	Johnston, R. J.	M 1
Boorman, G.	M 3	Justik, J. C.	M 6
Bowlsby, L. R.	D 5	Keir, W. R.	M 4
Bradley, N. J.	M 6	Key, C.	M 3
Bradshaw, A. K.	M 1	Kidd, E. G.	M 3
Breton, G. J.	M 3	King, A. B.	M 6
Brown, L. B.	M 4	Kirk, D. K.	M 5
Lieberman, Miss E. B.	M 6	Kozak, P. E.	M 3
Buckwold, A. K.	D 4	Krasnoff, B.	D 5
Cairns, A.	M 3	Krasnoff, M.	D 4
Callbeck, G. R.	M 4	Krivel, H.	M 4
Cameron, I. B.	M 5	Lavers, G. D.	M 6
Campbell, G. M.	M 1	Leonidas, Miss E.	M 1
Christie, R. G.	M 3	Lewis, J. S.	M 6
Cohen, J. G.	D 4	Lipkind, M. J.	D 4
Colley, R. Q.	M 4	Livingstone, A. G.	M 3
Corbet, R. C.	M 1	Lloyd, H. A.	M 5
Cormack, G. N.	M 4	Loveseth, L. F.	M 5
Costigan, P. G.	M 6	McAlpine, D. G.	M 5
Cotter, W. A.	D 2	Macbeth, R. A.	M 4
Cotterell, J. D.	M 4	MacCrostie, M. W.	M 3
Davis, M.	D 5	McCrum, J. R.	M 3
Day, J. C.	M 6	MacDonald, A. R. S.	M 5
Dickout, J. M.	M 5	Macdonald, G. R.	M 6
Dixon, A. A.	M 3	MacDonald, J. A.	M 3
Dombrowski, H. J.	D 5	MacDonald, W. J.	M 3
Dorsey, F. R. J.	M 6	McDougall, A. N.	D 2
Duggan, J. W.	M 5	MacEwan, W. R.	M 3
Duncan, R. M.	D 2	McInnis, J. D.	D 1
Dvorkin, J.	M 5	McKeage, J. F.	M 4
Edmunds, L. M.	M 4	Mackinnon, H. N.	M 1
Edwardh, O. H.	M 4	MacLaren, L. B.	M 5
Edwards, L. H.	M 1	Macleod, J. L.	M 3
Ellison, E.	D 5	McPhail, C. W. B.	D 5
Evans, G. C.	D 1	MacRae, Miss M. E.	M 4
Evoy, C. C.	M 3	McWilliam, Miss M. B.	M 5
Farquharson, R. E. H.	M 4	Mair, C. M. H.	M 6
Fee, A. D.	D 2	Mallin, L. E.	D 2
Fergie, F. A.	D 1	Marfleet, T. L.	M 1
Ferguson, Miss M. J.	M 3	Marshall, M.	M 1
Fernet, F. A.	D 1	Masson, J. W.	M 5
Fjordbotten, A. L.	M 4	Maxwell, J. A.	M 6
Fraser, A. A.	D 2	Melnyk, D.	M 5
Frebrowski, P. W.	M 4	Metcalfe, J. O.	M 1
Freebury, W. H.	M 5	Miller, G. E.	M 3
French, W. E.	M 3	Miner, Miss S.	M 4
Fulton, J. B.	M 4	Moreau, J. P.	M 4
Gain, E. A.	M 6	Myers, Miss V.	M 3
Giles, C. R.	M 5	Myers, H. A.	M 3
Gilmour, D. S.	D 1	Nay, A. S.	D 1
Goldberg, J.	M 1	Neil, Miss R. B.	M 4
Goodman, J. M.	M 5	Newland, Miss E. M.	M 6
Gordon, K. M.	D 4	Nikiforuk, T.	D 5

Olsen, Miss C. W.	D 4	Trott, A. W. J.	M 3
O'Meara, Miss M. W.	M 5	Tysoe, F. W.	M 3
Ottem, M. H.	D 1	Tysoe, J. F.	M 6
Otto, T. G.	M 5	Van Kleeck, Miss W. M.	M 3
Ower, R. C.	M 3	Veiner, S.	D 4
Phillips, D. L.	M 4	Venables, A.	M 5
Phipps, G. T.	D 5	Waite, W. T.	D 5
Poulsen, E. R.	M 6	Walhovd, T. H.	D 1
Pow, R. E.	M 6	Walhovd, T. O.	D 2
Prowse, W. C.	M 5	Wallace, J. B.	M 4
Raragosky, T. M.	M 6	Walsh, A. C.	M 6
Rice, D. A.	M 3	Warren, D. H.	D 2
Ross, C. A.	M 5	Warshawski, R. S.	D 1
Roy, D. G.	M 3	Warshawski, S. J.	M 6
Russell, W. F.	M 6	Weatherilt, J. L.	M 5
Samuels, A. J.	M 5	Weaver, A. S.	M 5
Samuels, H. L.	D 1	Weder, C. H.	M 6
Satanove, A.	M 4	West, N. J.	D 2
Sheckter, S.	D 1	Wiggins, R. L.	M 3
Short, H. J.	D 5	Williams, R. G.	M 5
Shragge, P.	M 6	Willox, G. L.	M 6
Shulhan, M.	M 4	Wolff, R. G.	M 6
Sinclair, J. A.	M 4	Wolochow, M.	M 4
Skwarok, E. W.	M 3	Woodman, F. L.	M 6
Sleath, G. E.	M 1	Wright, T. A.	M 6
Smith, G. L.	M 1	Yaholnitsky, R.	M 5
Stechishin, O.	M 6	Yaremchuk, S. L.	D 2
Stein, S.	D 2	Yoneda, Yoshitaro	M 4
Stephens, J. W.	M 4	Yoneyama, M.	M 5
Stewart, W. D.	M 4	Yoneyama, Y.	D 5
Straughan, G. E.	M 3	Younger, L. I.	M 3
Swallow, Miss K. A.	M 1	Zack, J. J.	M 3
Tredger, C. N.	M 6		

February-August, 1943

Acton, W. C.	M 5	Drouin, P.	M 1
Adilman, B.	M 4	Duggan, J. W.	M 6
Agnew, G. A.	M 6	Duncan, R. M.	D 3
Aikenhead, J. F.	M 6	Duncan, W. R.	M 1
Allard, C. A.	M 6	Dvorkin, J.	M 6
Amundsen, L. R.	M 5	Edmunds, L. M.	M 5
Armey, Miss M. C.	M 1	Edwardh, O. R.	M 5
Armstrong, H. B.	M 6	Edwards, J. L.	M 1
Ayre, W. B.	M 6	Edwards, L. H.	M 2
Baker, P. L.	M 2	Evans, G. C.	D 2
Barclay, W. R.	M 2	Evoy, C. C.	M 4
Beauchamp, L. E.	M 2	Farquharson, R. E. H.	M 5
Bell, D. M.	M 5	Fee, A. D.	D 3
Bennett, N. T.	M 1	Fergie, F. A.	D 2
Bennett, W. L. L.	M 2	Ferguson, Miss M. J.	M 4
Berezan, D.	M 6	Fernet, F. A.	D 2
Blaquiere, R. H.	D 3	Fjordbotten, A. L.	M 5
Bloom, L.	D 5	Fletcher, C. M.	M 1
Boileau, G. R.	M 2	Fraser, A. A.	D 3
Bolocan, H.	M 5	Fraser, R. S.	M 1
Boorman, G. C.	M 4	Frebrowski, P. W.	M 5
Bradshaw, A. K.	M 2	Freebury, W. H.	M 6
Breton, G. J.	M 4	French, W. E.	M 4
Brown, Miss J. M.	M 1	Friesen, B. D.	D 1
Brown, L. B.	M 5	Fulton, J. B.	M 5
Cairns, A.	M 4	Giles, C. R.	M 6
Callbeck, G. R.	M 5	Gilmour, S. D.	D 2
Cameron, I. B.	M 6	Gish, M. M.	M 1
Campbell, G. M.	M 2	Goldberg, J.	M 2
Christie, R. G.	M 4	Goodman, J. M.	M 6
Cohen, J. H.	D 5	Gordon, K. M.	D 5
Colley, R. Q.	M 5	Graham, G. G.	M 5
Corbet, R. C. B.	M 2	Graham, O. H.	D 5
Cormack, G. N.	M 5	Green, K.	M 1
Cotter, W. A.	D 3	Grisdale, L. C.	M 2
Cottrell, J. D.	M 5	Hall, E. R.	M 1
Crux, N. W. G.	M 6	Hall, H. H.	D 1
Davis, M.	M 6	Hardin, I.	M 6
Dickout, J. M.	M 6	Harrison, C. C.	D 1
Dixon, A. A.	M 4	Harrison, R. C.	M 6

Hein, S. S.	M 1	Mooney, A. W.	M 1
Hemstock, J. W.	M 5	Moreau, J. P.	M 5
Hoar, Miss Z. E.	M 1	Myers, H. A.	M 4
Hugill, Miss J. T.	M 2	Myers, Miss V.	M 4
Husel, D. H.	M 1	Nay, A. S.	D 2
Jackson, J.	D 3	Neil, Miss R. B.	M 5
James, T. W.	D 2	Olsen, A. A.	D 1
Janzen, J. N.	D 5	Olsen, C. W.	D 5
Johnston, D. C.	M 5	O'Meara, Miss M. W. H.	M 6
Johnston, L. W.	M 5	Ottem, M. H.	M 2
Johnston, R. J.	M 2	Otto, T. G.	M 6
Jones, J. H.	D 1	Ower, R. C.	M 4
Keir, W. R.	M 5	Phillips, D. L.	M 5
Key, C.	M 4	Prowse, W. C.	M 6
Kidd, E. G.	M 4	Rice, D. A.	M 4
Kimmit, P. J. E.	M 1	Ross, C. A.	M 6
Kirk, D. K.	M 6	Roy, D. G.	M 4
Klasen, Miss L. M.	D 1	Samuels, A. J.	M 6
Kozak, P. E.	M 4	Samuels, H. L.	D 2
Krasnoff, M.	D 5	Satanove, A.	M 5
Kreutzer, E. F.	M 5	Sheckter, S. S.	D 2
Krivel, H.	M 5	Shulhan, M.	M 5
Larsen, A. A.	M 1	Simovitch, M.	M 1
Leith, N.	M 1	Sinclair, J. A.	M 5
Leonidas, Miss E.	M 1	Skwarok, E. W.	M 4
Lipkind, M. J.	D 5	Sleath, G. E.	M 2
Livingstone, A. G.	M 4	Slevinsky, A.	D 1
Lloyd, H. A.	M 6	Smith, G. L.	M 2
Loveseth, L. J.	M 1	Spackman, L. F.	M 1
Lynn, R. L.	D 5	Stein, S.	D 3
McAlpine, D. G.	M 6	Stephens, J. W.	M 5
Macbeth, R. A. L.	M 5	Stewart, W. C.	M 1
MacCrostie, M. W.	M 4	Stewart, W. D.	M 5
McCrum, J. R.	M 4	Straughan, G. E.	M 4
McCutcheon, J. D.	M 1	Swallow, Miss K. A.	M 2
Macdonald, A. R. S.	M 6	Trott, A. W.	M 4
MacDonald, J. A.	M 4	Tysoe, F. W.	M 4
MacDonald, W. J.	M 4	Ulrich, D. G.	M 1
McDougall, A. N.	D 3	Van Kleeck, Miss W.	M 4
MacEwan, W. R.	M 4	Veiner, S.	D 5
McInnis, J.	D 2	Venables, A. J.	M 6
Mackay, B. W.	D 1	Walhovd, T. H.	D 2
McKeage, J. F.	M 5	Walhovd, T. O.	D 3
MacKinnon, H. N.	M 2	Wallace, J. B.	M 5
MacLaren, L. B.	M 6	Warren, D. H.	D 3
Macleod, J. L.	M 4	Warshawski, R. J.	D 2
MacRae, M. E.	M 5	Weatherill, J. L.	M 6
McWilliam, Miss M. B.	M 6	Weaver, A. S.	M 6
Mallin, L. E.	D 3	West, N. J.	D 3
Marfleet, T. L.	M 2	Wiggins, R. L.	M 4
Marshall, M.	M 2	Williams, R. G.	M 6
Masson, J. W.	M 6	Wolochow, M.	M 5
Mathias, D. G. B.	M 1	Yaholnitsky, R.	M 6
Matkin, B. W.	D 1	Yaremchuk, S. L.	D 3
Melnyk, D.	M 6	Yoneda, Y.	M 5
Metcalfe, J. O.	M 2	Yoneyama, M.	M 6
Miller, G. E.	M 4	Younger, L. I.	M 4
Miner, Miss S.	M 5	Zack, J. J.	M 4

SUMMER SESSION, 1942

Allen, C. M.	Bernstein, Miss H. S.
Allen, Miss D. S.	Blockside, J. H.
Allen, Miss D. E.	Blumell, R. E.
Allen, Miss M.	Boulanger, J. B.
Allergoth, H. C.	Boulton, P. F.
Anderson, L. E.	Bowden, J. W.
Ansley, E. C.	Branum, Miss J. M.
Armstrong, Miss D. M.	Brown, Miss O. B.
Ballantine, Miss D.	Bruce, M. L.
Baron, R. B. D.	Burpee, H. W.
Bayly, A. G.	Bussard, L. H.
Beaudry, P.	Byrne, F. T.
Berge, G. C.	Catley, Miss S.

- Cherniwchan, J. M.
 Chrapko, D. S.
 Clarke, Mrs. A.
 Clarke, G. V. T.
 Clarke, S. C.
 Corbet, V. S. B.
 Cork, H. F.
 Corneliuson, A.
 Cossette, E.
 Coultis, Miss R. J. B.
 Cousins, W. J.
 Coyle, W. A.
 Cranston, G. A.
 Crowther, S. H.
 Cutt, W. T.
 Deane, S. G.
 Desrochers, Father E.
 Desrochers, R. I.
 Dewar, Miss T. J.
 Dick, D. R.
 Doze, Miss S. M.
 Drouin, E. O.
 Duckworth, G. H.
 Duhaime, Rev. A.
 Dyer, Miss L. E.
 Dyson, Miss R. L.
 Edwardh, M. O.
 Ell, Rev. Ulric
 Elliott, A. H.
 Ellis, J. H.
 Erickson, E. M.
 Evans, W. H.
 Facey, F. B.
 Fallow, Miss V. M.
 Farmer, Miss G. M.
 Fearn, Miss M. A.
 Fowler, W. T. M.
 Frederking, R.
 Freehill, M. F.
 Frost, A. W.
 Fulton, Miss F. L.
 Galdzinski, W. J.
 Gander, J. E.
 Gaynor, Miss M. F.
 Genge, C. A.
 Gibson, J. E.
 Gibson, Miss L. R.
 Gimby, W. H.
 Gish, Miss A. M.
 Goodwin, L.
 Gottenberg, Miss K. L.
 Grant, Miss M. H.
 Grant, Miss M. J.
 Green, E. E.
 Gregg, Miss I. M.
 Guay, A.
 Hadlington, E. R.
 Hall, L. G.
 Hambly, J. R. S.
 Hamilton, D. S.
 Hampson, C.
 Hannocho, F.
 Harris, Miss M. J.
 Hawker, J. E.
 Hiatt, Miss M. L.
 Hodge, J. A.
 Houglund, R. E.
 Huculak, J. W.
 Hughson, Miss E. W.
 Humphries, Miss M.
 Huntrods, J. E. H.
 Huston, Mrs. E. L.
 Hyde, Miss E. G.
 Irvine, W. L.
 Jacobs, L. H.
 Jallep, W.
 James, J. W.
 Jenken, W. B. L.
 Johnson, W. J.
 Johnston, R.
 Kelly, C. D.
 Kirk, Miss D. M.
 Kitchen, R. M.
 Kujath, W. A.
 Kupchenko, V.
 Kuzmar, J.
 Lambertson, C. L.
 Lancaster, Miss J. E.
 Landels, Miss E. F.
 Larson, H. L.
 Larson, O. P.
 Lavery, C. M.
 Lavoie, Father G. J.
 Layton, R. B. Jr.
 Lee, Miss E. M.
 Lehmann, F. W.
 Lomnes, B. L.
 Love, J. A.
 Lysne, W. H.
 McAulay, J. D.
 McBain, Miss B. S.
 McBain, Miss D. C.
 McCall, H. F.
 McConkey, Miss M. E.
 McCrea, Miss M.
 McCullough, H. A.
 Macdonald, Miss C. J.
 Mackay, Miss D. E.
 McKee, E. S.
 McKenzie, A. H.
 Mackenzie, Miss I.
 McKnight, Miss C. C.
 Maclauchlan, W. M.
 MacLean, Mrs. J. E.
 MacLean, M. G.
 McLean, W. R.
 McManus, I. J.
 McVea, J. F.
 Mack, A. N.
 Mastalish, S.
 Maxwell, Miss M. D.
 Mayor, W. C.
 Meade, M. D.
 Medd, L. A.
 Medd, W. J.
 Melsness, H. C.
 Menard, Father M.
 Merrick, Miss M. A.
 Michael, Miss A. M.
 Michael, Miss A. K.
 Mildemberger, C.
 Miller, F. N.
 Miller, R. H.
 Milne, Mrs. S. A.
 Mitchell, W. O.
 Montgomery, Miss A. A.
 Morris, J.
 Morrison, Mrs. A. L.
 Mulholland, J.
 Murray, Miss K. M.
 Nelson, Miss B. A.
 Nepstad, E. T.
 Newcombe, Miss I. D.
 Nicholson, W. E.
 Nishioka, G.
 Nixon, Miss K. E.
 Nordon, T. W.
 Nurcombe, Mrs. V. T.
 Nyberg, Miss R. I.
 Olson, O. A.

- Ondrus, S. J.
 Pallister, Miss M. A.
 Parker-Nordon, Mrs. E. B.
 Parkinson, Mrs. H. C.
 Parkinson, H. G.
 Parsons, Miss E. O.
 Pasechnick, Miss A.
 Paton, R. N.
 Patterson, D. C.
 Peers, F. W.
 Pelchat, A. M.
 Peters, Miss H. A.
 Pitt, E. L.
 Pogue, S. E.
 Pollett, A. J.
 Powell, Miss M. M.
 Puchalik, J. W.
 Purvis, N. M.
 Rabkin, K. J.
 Rae, J. S.
 Ramsbottom, Miss E. G.
 Rankin, Miss E. J.
 Richards, C.
 Riddell, Miss J. N. B.
 Ringdahl, R. S.
 Rinn, B. F.
 Robinson, Miss G. G.
 Roos, V.
 Rostaing, L. C.
 Rorke, Mrs. M. Y.
 Ross, Miss J.
 Roussell, Rev. G. L.
 Rubin, Miss S. B.
 Rudiak, M. W.
 Russell, Miss M. R.
 Rydberg, G. E.
 Samuels, V.
 Savitsky, P.
 Schommer, J. H.
 Schultz, Miss E. G.
 Sebastian, Father W.
 Selwood, Miss E. E.
 Shonn, F. C.
 Shortliffe, D. L.
 Sickoff, F. W.
 Simcoe, A.
 Simonson, S. D.
 Sinclair, Miss I.
 Smith, Miss M. A.
 Sorenson, S. A.
 Souch, E. B.
 Stauffer, W. F.
 Stickle, S. J.
 Stockwell, A.
 Stratte, O. A.
 Stratte, V. A.
 Stringer, H. L.
 Sutherland, Miss W. M.
 Sr. Bernadette
 Sr. Louise
 Sr. Cecilia
 Sr. Gabriel
 Sr. Corry
 Sr. Henrietta Maria
 Sr. Hockstein, I. I.
 Sr. Hochstein, L. A.
 Sr. Jeanne-du-Calvaire
 Sr. Maria Vincentia
 Sr. Mary Baptista
 Sr. Constance
 Sr. M. Elizabeth
 Sr. M. Fernand
 Sr. M. Marcella
 Sr. M. Robert
 Sr. M. St. Amedee
 Sr. M. of St. Edward of the Cross
 Sr. M. of St. Godfrey
 Sr. M. St. Joseph
 Sr. M. of St. Regine
 Sr. M. of St. Therese-des-Anges
 Sr. Monica
 Sr. Angelina Plouffe
 Sr. Saint-Daniel
 Sr. St. James
 Sr. Saint-Sylva
 Sr. Anne
 Sr. Gabriel Tellier
 Taylor, Miss E. M.
 Taylor, G. A.
 Tetreault, Father G.
 Thibodeau, Miss B.
 Thompson, A. T.
 Towers, Miss H. M.
 Townsend, E. A.
 Van Deelen, Miss W. V.
 Wadell, W. S.
 Wallace, R. G.
 Ward, Miss M. L.
 Way, R. E.
 Weiss, Miss A. M.
 Weldon, R. C.
 Wiggins, E. T.
 Wilcox, F. L.
 Williams, Miss D. L.
 Willson, Miss M. M.
 Willson, H. B.
 Wiltse, H. L.
 Wismer, H. D.
 Wolansky, Miss M. G.
 Zaslow, M.

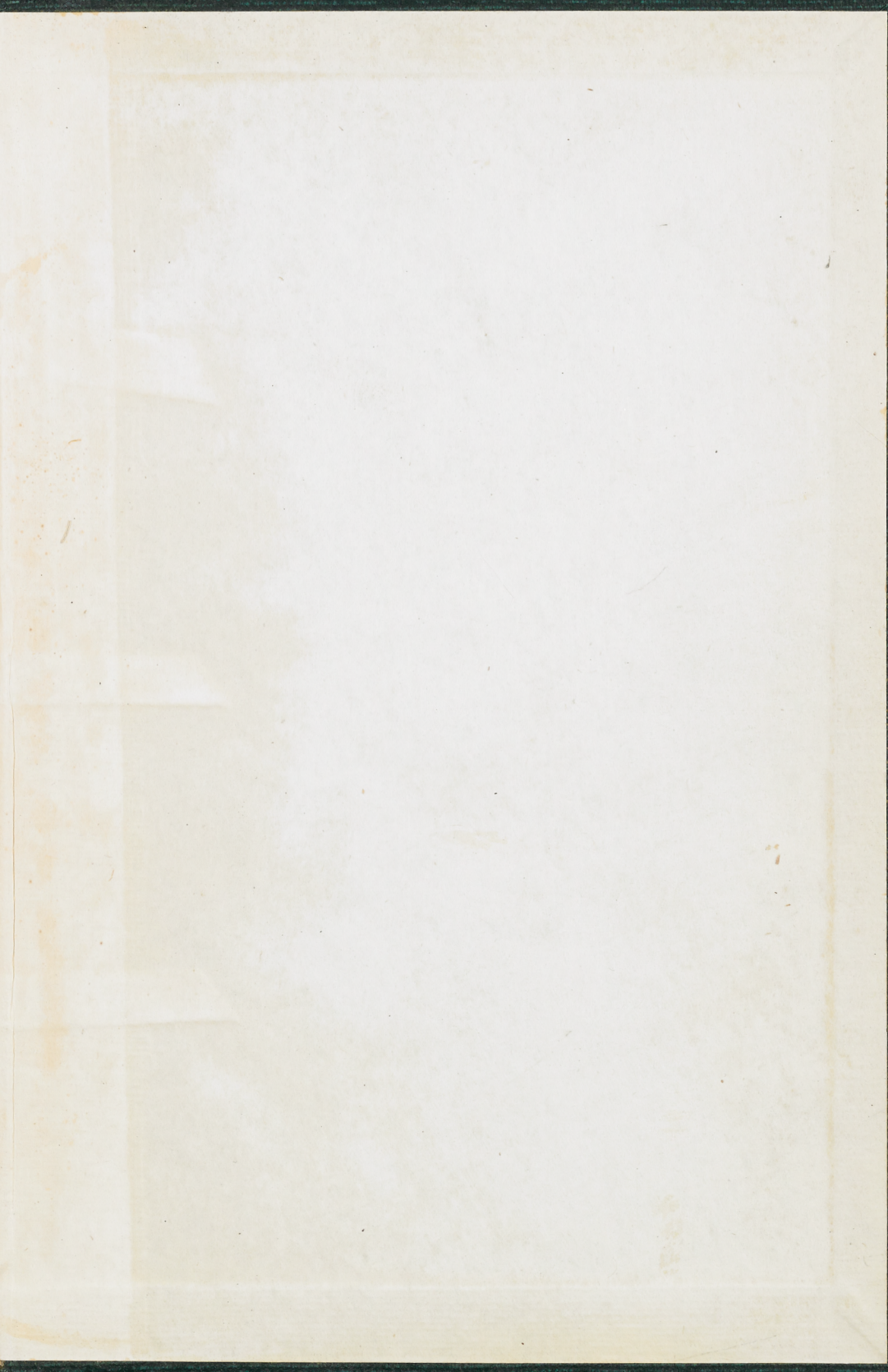
INDEX

Absentia, degrees and diplomas in	62
Administrative officers	8
Academic calendar	3
Academic costume	61
Academic honors	35
Academic staff	11
Accounting	87, 191
Ad eundem degrees	236
Affiliated institutions	243
Agricultural Engineering	131
Agriculture, degree in	133
Anatomy	192
Animal Husbandry	139
Animal Science	139
Appeals	56
Applied Science, faculty of	155
Arts and Science, degree in	66
Athletics	59
Attendance and lateness	53
Bachelor of Arts degree of	71
Bachelor of Commerce, degree of	86
Bachelor of Divinity, degree of	235
Bachelor of Education, degree of	222
Bachelor of Household Economics, degree of	86
Bachelor of Laws, degree of	213
Bachelor of Science in Agriculture, degree of	133
Bachelor of Science in the Faculty of Arts and Science, degree of	71
Bachelor of Science in Engineering, degree of	155
Bachelor of Science in Household Economics, degree of	86
Bachelor of Science in Medicine, degree of	184
Bachelor of Science in Nursing, degree of	188
Bachelor of Science in Pharmacy, degree of	190
Bacteriology and Hygiene	88, 193
Biochemistry	89, 142, 194
Biology	89
Board of Governors	7
Book Store, University	27
Botany	90, 142
Canadian Officers' Training Corps	241
Chemical Engineering	158, 170
Chemistry	91, 143, 163, 194
Civil Engineering	157
Civil and Municipal Engineering	165
Classics	95
Colleges, Affiliated	243
Combined courses:	
B.A., B.Com.	82
B.A., B.Sc. in Agriculture	85
B.Sc., D.D.S.	84
B.A., B.Ed.	225
B.Sc., B.Ed.	225
B.Com., B.Ed.	226
B.A., B.Sc. in Engineering	83
B.A., LL.B.	84
B.Sc., M.D.	84

Commerce, degree in	86
Commerce, School of	86
Commercial Law	100
Dairying	144
Debating	236
Dentistry, degree in	186
Dentistry	195
Discipline	58
Distinction, Bachelor of Science in Agriculture with	138
Doctor of Dental Surgery, degree of	186
Doctor of Medicine, degree of	184
Doctor of Science, degree of	235
Education, faculty of	220
Education	100, 228
Electrical Engineering, degree in	160
Electrical Engineering	171
Engineering, degrees in	155
English	100, 144
Entomology	103, 145
Examinations	54
Extension Dept. of	237
Faculty colors	61
Faculty Councils	8
Fees	52, 66, 132, 154, 182, 211, 220, 232
Field Crops	146
French, see Modern Languages	115
General Literature	104
Genetics	105
Geology	105, 107
German, see Modern Languages	117
Graduate Courses	233
Greek, see Classics	96
Gynaecology, Dept. of Obstetrics and	202
Higher Degrees	233
History	107
History of the University	21
Honors, Academic	35
Honor courses	73
Horticulture	148
Household Economics, degrees in	86
Household Economics	110
Household Economics, School of	86
Hygiene	112, 175, 193
Industrial Laboratories	240
Institute of Technology and Art	247
Junior Colleges	245
Latin, see Classics	95
Law, degree in	213
Library, Extension	238
Library, University	27
Living Accommodation	60

Master of Arts, degree of	233
Master of Education, degree of	226, 234
Master of Science, degree of	233
Materia Medica	198
Mathematics	112, 149, 175
Matriculation requirements	28
Matriculation scholarships	45
Medals	35
Medical Services	60
Medicine, degree in	184
Medicine and Clinical Medicine	198
Mining Engineering	176
Mining Engineering, degree in	161
Modern Languages	115
Mount Royal College	246
Municipal Engineering	165
Nursing:	
Degree	188
Diploma	188
Obstetrics and Gynaecology	202
Organization of the University	21
Pathology	203
Pharmacology	206
Pharmacy:	
Degree	190
Diploma	190
Pharmacy	204
Philosophy	120
Physical Education	240
Physical Examination	60
Physics	122, 150, 179
Physiology and Pharmacology	125, 205
Political Economy	82, 126, 151, 180
Poultry Husbandry	141
Prizes	35
Professional Examinations	57
Provincial Institute of Technology and Art	247
Psychology, see under Philosophy	120
Radio	239
Register of students	248
Registration	52
St. Aidan's College	245
St. Joseph's College	245
St. Stephen's College	243
Scholarships	35
Scholastic Standing	59
Senate	7
Soils	151
Spanish, see Modern Languages	119
Student functions	61
Student meetings	61
Students, Register of	248
Summer Session	62

Supplemental Examinations	56
Surgery and Clinical Surgery	207
Technology and Art, Provincial Institute of	247
Time-table of lectures in the various faculties will be published separately and will be available to students before registration.	
University Hospital	243
Veterinary Science	141
Withdrawal of Students	60
Zoology	128, 152



University of Alberta Library



0 1620 0634 9573